Attachment 5

to United States' Memorandum in Support of Motion to Dismiss Second Amended Complaint

Declaration of Mark S. Lorenz

UNITED STATES DISTRICT COURT
NORTHERN DISTRICT OF ILLINOIS

STEVEN B. POLLACK, et al., Plaintiffs,	)	
v.	)	No. 08-CV-320
UNITED STATES DEPARTMENT OF JUSTICE et al., Defendants.	)	

DECLARATION OF MARK S. LORENZ

I, Mark S. Lorenz, affirm and state as follows:

1. I am a Fire Protection Engineer in the Occupational Safety and Environmental Programs (OSEP) Unit of the Federal Bureau of Investigation ("FBI"). I became the FBI's Fire Protection Program Manager in 1999 when I Entered on Duty and have been a member of the OSEP Unit since then. Since November of 2007, I have served as Acting Unit Chief, OSEP.

2. I have been designated pursuant to 40 C.F.R. § 300.120 as the on-scene coordinator for the FBI response action under the Comprehensive Environmental Response, Compensation and Liability Act ("CERCLA") at the FBI's Regional Training Facility in North Chicago, Illinois ("FBI Range"). In my capacity as on-scene coordinator at the FBI Range I am responsible for directing and coordinating all efforts related to the FBI's response action. I provide this declaration based upon my personal knowledge and experience, upon information provided to me in my official capacity, and upon conclusions and determinations reached and

made in accordance therewith.

3. In April of 2006, the FBI commenced an environmental assessment which resulted in a report dated July 5, 2006 prepared by the FBI's safety and environmental contractor, Events Analysis Corporation (the "EAC Report," attached as Exhibit 1). The EAC Report recommended a more intensive evaluation of the environmental conditions at the FBI Range. Based on that recommendation, the FBI undertook further environmental assessment of the FBI Range, which included analytical sampling data gathered from soils, groundwater, and Lake Michigan sediment at the FBI Range in October of 2007 by WSP Environmental Strategies LLC. The results of that sampling are attached as Exhibit 2.

4. In January of 2008, the FBI notified the Illinois Environmental Protection Agency ("IEPA") regarding the environmental conditions at the FBI Range and, on March 7, 2008, the FBI sent a letter to the Regional Administrator of the United States Environmental Protection Agency notifying the EPA of the response actions the FBI had taken, and would continue to take, at the FBI Range pursuant to CERCLA Section 104, 42 U.S.C. § 9604, and related legal authorities. *See* Exhibit 3.

5. Based on results of the EAC Report and the analytical sampling undertaken in October of 2007, the FBI has commenced a site evaluation and preliminary assessment pursuant to 40 C.F.R. § 300.410. In addition to considering the results of the EAC Report and the October 2007 sampling data, the FBI has contracted with EAC/ WSP Environmental Strategies LLC to characterize the hydrogeological conditions of the FBI Range and to collect additional soil, groundwater and Lake Michigan sediment samples (both on-range and off-range, and including the installation of permanent groundwater monitoring wells) to further characterize

environmental conditions at the site. I presently anticipate that this stage of the FBI's preliminary assessment will be completed by August of 2008.

6. The preliminary assessment is ongoing, includes many different components, and has several objectives, among them: determining the source and nature of any release, or threat of release, at the site; the magnitude of any release; whether a removal site inspection and evaluation of off-site locations, such as Foss Park, is warranted; and, ultimately, determining whether contamination on-site warrants federal response action at all or, if a federal response is warranted, whether that response should be a "removal" or "remedial" action under CERCLA. *See* 40 C.F.R. § 300.410(c), (d), (f), (i). Given the substantial amount of remaining work to be done and the possibility that currently unforeseen analysis may be required, it is impossible to state with certainty when the preliminary assessment will be complete. However, the FBI has a target date of October of 2008 for completing the preliminary assessment.

7. The FBI's assessment also includes an ongoing investigation as to the likelihood, and means, of bullets escaping the FBI Range into Foss Park or Lake Michigan, as well as the volume of potential lead and other contamination associated with such occurrence, if any. This study is expected to result in recommendations for minimizing the potential for such events and any resulting environmental contamination. This study will also evaluate current range management practices in light of best management practices for shooting ranges to reduce lead and other contamination and recommend improvements to range practices if appropriate. The results of this analysis will be considered as part of the FBI's preliminary assessment and removal site evaluation.

8. Pursuant to 28 U.S.C. § 1746, I hereby declare under penalty of perjury that the

facts set forth in this Declaration are true and correct to the best of my knowledge, information and belief.

Executed this 24th day of April, 2008.

Mark S. Lorenz
FBI Fire Protection Program Manager

Exhibit 1

to Declaration of Mark S. Lorenz

EAC Report (excluding attachments)

DELETION CODES

H. THE LAW ENFORCEMENT PRIVILEGE - THE DISCLOSURE OF THIS INFORMATION WOULD IMPEDE OR IMPAIR THE EFFECTIVENESS OF AN INVESTIGATIVE TECHNIQUE, METHOD OR PROCEDURE OF THE FBI.

I. INFORMATION, THE DISCLOSURE OF WHICH WOULD DIVULGE OPINIONS, RECOMMENDATIONS, AND ADVICE GENERATED IN THE DECISION-MAKING PROCESS OF THE GOVERNMENT.

J. INFORMATION, THE DISCLOSURE OF WHICH IS PROHIBITED BY FEDERAL STATUTE (WITH CITATION TO THE APPROPRIATE STATUTE).

K. INFORMATION PROTECTED UNDER THE ATTORNEY-CLIENT PRIVILEGE.

L. INFORMATION OR MATERIAL PROTECTED UNDER THE WORK PRODUCT DOCTRINE.

M. INFORMATION WHICH IS NOT RESPONSIVE.

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O-1. DELETIONS NOT MADE BY CIVIL DISCOVERY REVIEW UNIT.

P. THE PRIVACY ACT OF 1974, 5 U.S.C. § 552a

P-1 INFORMATION, THE DISCLOSURE OF WHICH WOULD BE AN UNWARRANTED INVASION OF PERSONAL PRIVACY.

S. PERSONAL IDENTIFYING INFORMATION RELATED TO LAW ENFORCEMENT PERSONNEL AND THEIR FAMILY MEMBERS, THE DISCLOSURE OF WHICH IS ROUTINELY GUARDED FOR SECURITY REASONS.

EVENTS ANALYSIS CORPORATION
11911 Freedom Drive, Suite 900 Reston, Virginia 20190 (P) [redacted]

PHASE I
ENVIRONMENTAL SITE ASSESSMENT
OF
THE FEDERAL BUREAU OF INVESTIGATION GREAT LAKES FIRING RANGE
890 FOSS PARK AVENUE
NORTH CHICAGO, ILLINOIS

PREPARED FOR
PUBLIC HEALTH SERVICES

PREPARED

BY

EVENTS ANALYSIS CORPORATION

JULY 5, 2006

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Acronym List

ACM	asbestos-containing material
AIRS	Aeromatic Information Retrieval System
AST	aboveground storage tank
ASTM	formerly the American Society for Testing and Materials
BFI	Browning Ferris Industries
CERCLIS	Comprehensive Environmental Response, Compensation, and Liability Act Information System
CONSENT	Superfund consent decrees
CORRACTS	the corrective action report database
DOD	Department of Defense Sites
DOT	Department of Transportation
EDR	Environmental Data Resources, Inc.
EPA	U.S. Environmental Protection Agency
EPCRA	Emergency Planning and Community Right-to-Know Act
ERNS	Emergency Response Notification System database
ESA	environmental site assessment
FBI	Federal Bureau of Investigation
FFIS	Federal Facilities Information System
FIFRA	Federal Insecticide, Fungicide, and Rodenticide Act
FINDS	Facility Index System
FTTS	the FIFRA/TSCA database
FURS	Federal Underground Injection Control
GSA	General Services Administration
HMIRS	Hazardous Materials Information Reporting System
LUST	leaking underground storage tank
MINES	Mines Master Index File Database
MLTS	Material Licensing Tracking System
NFA	no further action
NFR	no further remediation
NPDES	National Pollution Discharge Elimination System
NPL	National Priorities List database
PADS	PCB Activity Database System
PCBs	polychlorinated biphenyls
PCS	Permit Compliance System
RAATS	RCRA Administrative Action Tracking System
RCRA	Resource Conservation and Recovery Act
RCRIS	Resource Conservation and Recovery Act Information System
ROD	records of decision
SIC	standard industrial classification
SQG	small quantity generator
SWF/LF	solid waste facility database
TRIS	the Toxic Release Inventory System
TSCA	Toxic Substances Control Act

USGS	U.S. Geological Survey
UST	underground storage tank

Executive Summary

On behalf of the U.S. Department of Public Health, Events Analysis Corporation conducted a Phase I environmental site assessment of the FBI Great Lakes Firing Range located at 890 Foss Park Avenue in North Chicago, Illinois. Events Analysis performed a site inspection of the subject property on April 18 and 19, 2006, and obtained information from Donald Henke, chief training officer of the FBI Great Lakes Firing Range

The subject property is comprised of 10 buildings and two firing ranges situated on an approximately 14.15-acre parcel of land, located approximately 32 miles north of the city of Chicago, owned by the FBI. A triangular-shaped, less than 1-acre parcel of land, also owned by the FBI, is located on the west side of Foss Park Avenue. In addition, the FBI owns approximately 2,975 acres of Lake Michigan, which has been codified as an impact in the Code of Federal Regulations and is marked on Lake Michigan navigation charts.

Based on a review of previous reports, memorandums, and letters, and historic records, the subject property was acquired by the U.S. Government on November 4, 1918, from the American Steel and Wire Company. The original acquisition was comprised of 36.59 acres through condemnation authorized by then acting Secretary of the Navy, Franklin D. Roosevelt. Subsequently, some of the acreage, including the land comprising present day Foss Park, was deeded out. From approximately 1918 to 1976, the Marine Corps used the site as a firearms range. During World War II, the Navy fired 3-inch naval guns from the facility at barges pulling targets in the impact area in Lake Michigan. The site was also used by the Navy for firearms training using a .50 caliber machine gun and potentially 20 millimeter shells were also used. The onsite pistol range was constructed in 1941. Under a lease agreement with the Navy, the FBI started using the subject property in approximately 1976, at which time, the FBI also started making improvements to the land at the site. By a letter dated August 8, 1987, the Regional Administrator of the General Services Administration (GSA) transferred the subject property to the FBI for $1.00.

Currently, the FBI uses the site for field and classroom training. The FBI allows approximately 40 local law enforcement, and military, and federal law enforcement agencies to use the firing range for training and practice purposes. The range operates from 6:00 A.M. to 6:30 P.M., 7 days per week, 365 days per year.

Events Analysis reviewed historic aerial photographs, topographic maps and city directories from 1908 to 2004. In the 1953 aerial photograph, a firing range and building structure are present in the location of the present day unpaved parking lot.

Events Analysis reviewed various previous environmental reports for the subject property prepared from 1983 to 2006. The reports identify the risk of contamination to the subject property from use of the site as a firing range since 1918; however, no investigation or remediation activities have been conducted at the subject property to determine the extent of contamination onsite.

The primary material used onsite by FBI is ammunition. The majority of the ammunition onsite is stored in boxes on shelves and on the floor of (H) [redacted] which is locked and secured. Some ammunition is stored in (H) [redacted] The FBI stores small containers (i.e., less than 5-gallon) of chemicals onsite. In the classroom/office building, the FBI stores Hoppe's lubricating oil; Hoppe's semi-auto 9, a gun solvent; Mili-Tech Cleaner, a gun cleaner; Cap Stun, a gun cleaner; commercial cleaners such as Quick Scrub II, a water-based cleaner/degreaser, Ajax, a water-based cleaner, and bleach; Sure Trac a tile cleaner; glass cleaner; and laundry soap. The materials are stored in containers on shelves in the building. In the gun cleaning building, the FBI stores acetone; mineral oil; Mili-Tech; oil; and Shooter's Choice gun cleaner in two flammables cabinets and at work stations. In the north garage, the FBI stores gasoline; diesel fuel; propane; carbon dioxide; transmission fluid; xylol; non-chlorinated degreaser; lighter fluid; insecticide; lubricating oil; water proofing coating; and lamp oil at work stations and in two flammables cabinets. In the warming room and storage building, the FBI stores commercial cleaners, ammunition, and cardboard targets. Ammunition and clay targets are stored in boxes in the skeet and trap area.

According to facility personnel and state and federal databases reviewed, the site is not a registered generator of hazardous waste. Nonhazardous waste streams generated onsite include wipes and towels contaminated with gun solvent and gun cleaning residue; cardboard targets; empty ammunition containers; ammunition blast comprised of lead; brass ammunition casings; empty chemical containers; spent fluorescent light bulbs; and food scraps. Reportedly, the FBI sends brass bullet casings offsite for recycling. All other waste is disposed in three dumpsters onsite managed by Waste Management, Inc., of North Chicago, Illinois.

Various waste streams currently managed as nonhazardous waste may meet the definition of hazardous waste. Based on the properties of the solvent and gun residues, the waste wipes and

towels may be considered hazardous waste. Also, though the FBI reportedly has not disposed of the material yet, a sand and bullet mixture located in a gun discharging area of the gun cleaning room may contain metal residues that would be considered hazardous. Last, reportedly, lead blast material observed throughout the subject property, is harvested by the FBI and discarded in the trash.

Events Analysis observed various discarded tubes of lubricant and empty containers of oil in the area covered by vegetation along the north border of the subject property. No evidence of stressed vegetation or staining was observed, thus, the discarded materials are considered *de minimis* and are not indicative of a recognized environmental condition.

Facility personnel reported that landscape waste, such as trees, are burned onsite. No other waste materials are burned onsite.

Currently, no aboveground or underground storage tanks are located at the site.

Potable water is supplied to the subject property by the city of North Chicago. No groundwater wells or drinking water wells were observed during the site visit. No vehicle washing occurs onsite.

Wastewater discharged from the subject property includes sanitary wastewater and washwater from the onsite laundry room from the classroom/office building. Wastewater is discharged to the North Shore Sanitary District Sewage Treatment Plant, located along the north border of the subject property. Facility personnel reported that lead contaminated clothing and towels are washed in the laundry room onsite. The wash water is discharged to the sanitary sewer system. Currently, FBI does not have a wastewater discharge permit.

A circular-shaped opening was visible in the north garage. The opening appeared to lead to the ground surface beneath the building and no piping was observed in the opening.

Minor oil stains were observed on the floor in the laundry room area inside the classroom/office building. The staining is considered a *de minimis* condition and is not indicative of a recognized environmental condition.

Storm water flows from the building roofs and infiltrates the ground surface. The storm water either infiltrates the ground surface or flows southeast. A storm water drain observed at the subject property was located at the north end of the firing range, and a storm water drainage pipe at the unpaved driveway located on the east side of the track. Storm water from the east side of the property infiltrates the ground surface and/or is discharged through the storm water

pipe to the unpaved driveway east of the track. Storm water from the firing range area and earthen ballistic backstop infiltrates the ground and/or flows west and north to the open storm water drain. Facility personnel were uncertain of the storm water drain discharge location; however, the potential exists that the water is discharged to Lake Michigan.

The FBI does not maintain a storm water permit. The facility's operations appear to be exempt from the storm water requirements; however, the FBI should verify its SIC code to determine the applicability of the storm water permitting requirements.

The FBI does not maintain any air permits for emissions onsite. Air emission sources onsite include the firing range; gun cleaning operations; and emissions from shooting at the shoot house.

According to a previous environmental report, no polychlorinated biphenyls (PCBs) are present at the subject property, and all electrical equipment onsite is owned by the local utility company. Without further documentation such as laboratory analytical results, the PCB information cannot be confirmed. Also, based on the construction date of the buildings onsite, the potential exists for PCB light ballasts to be present onsite.

Based on the construction date of various buildings onsite the potential exists for asbestos containing materials (ACM) to be present. A comprehensive asbestos inventory has not been conducted at the subject property.

Based on the construction date of various buildings onsite the potential exists for lead-based paint to be present.

Events Analysis searched federal and state regulatory databases for the subject property and surrounding properties. No environmental concerns were identified.

Events Analysis conducted a Phase I environmental site assessment of the FBI Great Lakes Firing Range located at 890 Foss Park Avenue in North Chicago, Illinois in accordance with the ASTM Standard Practice E 1527-00 for Environmental Site Assessments: Phase I Environmental Site Assessment Process. Based on the results of the assessment, Events Analysis the following recognized environmental conditions:

- The subject property has been used as a firing range by the U.S. military since 1918. Previous environmental reports document the potential risk of onsite soil and groundwater contamination from use of the subject property, including Lake Michigan, as a firing range since approximately 1918; however, no investigation or

remediation activities have been conducted at the subject property to determine the extent of contamination onsite. Thus, Events Analysis considers the historic and current operations onsite to be a risk of onsite contamination, and thus, is considered a recognized environmental condition.

- The aerial photograph evidence (1953) that the present north parking lot was historically used as a firing range is considered a recognized environmental condition, because the potential exists for lead or other metals to have impacted to the surface and groundwater.
- The potential for lead-containing storm water runoff from the firing range and earthen ballistic backstop to have impacted the soil and Lake Michigan is considered a recognized environmental condition.

Events Analysis makes the following recommendation to address the recognized environmental conditions identified during the Phase I environmental site assessment:

- The FBI should conduct a comprehensive site investigation to determine the extent of contamination from the firing range operations to soil and groundwater. Before any soil or groundwater sampling activities are conducted, the site should be cleared of all ordnances by a certified professional.

Based on Events Analysis' review of compliance management practices, Events Analysis recommends the following to improve the environmental performance of the facility:

- The FBI should conduct a comprehensive characterization of waste streams generated onsite using laboratory analysis or generator knowledge to determine whether the waste streams are hazardous.
- As a good management practice, the FBI should maintain documentation of the offsite shipments of copper for recycling.
- Spent fluorescent light bulbs may be characterized as hazardous waste, and thus, the FBI should discontinue its practice of throwing spent fluorescent light bulbs into the general trash.
- As a good management practice, the FBI should discontinue the practice of burning landscape waste onsite.
- As a good management practice, to prevent a release of any chemicals or

residue from the garage from reaching the ground surface, the FBI should close the opening in the floor of the north garage.

- The FBI should verify it's SIC code to determine the applicability of the storm water permitting requirements.
- The FBI should prepare an air emissions inventory of operations onsite to verify that an air permit(s) is not required.
- The FBI should request information on the PCB content of the utility-owned transformers at the subject property.
- As a good management practice, the FBI should develop a policy for the management of spent ballasts to ensure that any PCB-containing ballasts are disposed properly.
- The FBI should conduct a comprehensive asbestos survey to identify ACM at the site buildings.
- The FBI should conduct a comprehensive lead-based paint survey of all buildings constructed before 1978.

Introduction

General

Events Analysis Corporation was retained by the U.S. Department of Public Health Services to conduct a Phase I environmental site assessment of the Federal Bureau of Investigation (FBI) Great Lakes Firing Range located at 890 Foss Park Avenue in North Chicago, Lake County, Illinois. The work conducted by Events Analysis conforms to the ASTM E 1527-00 Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Process. This report details the findings of the assessment. The assessment is based on a visit to the site by (P) [redacted] project director of Events Analysis. Events Analysis was assisted on the site visit by Donald Henke, chief training officer of the FBI Great Lakes Firing Range. (P) [redacted] of the FBI were also present during the site visit. The following work was conducted during completion of the environmental assessment:

- A site inspection of the subject property was conducted April 18 and 19, 2006.
- Events Analysis' confidential Phase I environmental site assessment questionnaire was completed with the assistance of Mr. Henke.
- Photographs of the site were taken to document conditions during the site visit and to highlight potential environmental concerns. The photographs are presented in Appendix A.
- Events Analysis retained Environmental Data Resources, Inc. (EDR), to conduct a database search of the site and properties within ASTM-specified search radii to help assess the likelihood of problems from migrating hazardous substances or petroleum products. The results of the database search are presented in Appendix B. The search (including the approximate minimum search distances) was conducted in accordance with the standards established by ASTM E 1527-00. The following databases were reviewed:

NPL — The National Priorities List (NPL) identifies uncontrolled or abandoned hazardous waste sites listed for remedial action under the Superfund program.

Proposed NPL	The proposed NPL database identifies sites that have been proposed for listing on the NPL.
CERCLIS	The Comprehensive Environmental Response, Compensation, and Liability Act Information System (CERCLIS) identifies sites where hazardous waste has been found or there are known, suspected, or likely releases of hazardous wastes from a facility.
CERCLIS-NFRAP	The No Further Remedial Action Planned (NFRAP) database identifies sites removed from the CERCLIS database.
CORRACTS	The corrective action report (CORRACTS) database identifies hazardous waste handlers with Resource Conservation and Recovery Act (RCRA) corrective action activity.
RCRA	The Resource Conservation and Recovery Act Information (RCRA) database provides information on the status of hazardous waste generation at a facility including large quantity generators (LQGs) and small quantity generators (SQGs) as well as RCRA-permitted treatment, storage, or disposal (TSD) facilities.
ERNS	The Emergency Response Notification System (ERNS) contains records on reports of oil and hazardous substance releases.
BRS	The Biennial Reporting System (BRS) database identifies generators and managers of hazardous wastes.
SWF/LF	The solid waste facility directory (SWF/LF) database identifies solid waste facilities or landfills, which may be active or inactive facilities, or open dumps that failed to meet RCRA subtitle D Section 4004 criteria for solid waste landfills or disposal sites.
IL NIPC	The Illinois solid waste landfill database (NIPC), is an inventory of active and inactive solid waste disposal sites, based on state, local government, and historic archive data.
VCP	The Voluntary Cleanup and Redevelopment Act Application Tracking Report (VCP) lists sites in the state VCP program.

CONSENT	The Superfund consent decrees (CONSENT) database identifies major legal settlements that establish responsibility and standards for cleanup at NPL sites.
ROD	The records of decision (ROD) database identifies documents that mandate a permanent remedy at an NPL site containing technical and health information to aid in the cleanup.
Delisted NPL	The NPL deletions (Delisted NPL) database identifies sites that may be deleted from the NPL where no further response is appropriate as defined by the National Oil and Hazardous Substances Pollution Contingency Plan.
FINDS	The Facility Index System (FINDS) database contains facility information and indicates other sources that contain more detail such as: Permit Compliance System (PCS), Aeromatic Information Retrieval System (AIRS), enforcement docket used to manage and track information on civil judicial enforcement cases for all environmental statutes (DOCKET), Federal Underground Injection Control (FURS), criminal docket system used to track criminal enforcement actions for all environmental statutes (C-DOCKET), Federal Facilities Information System (FFIS), state environmental laws and statutes (STATE), and Polychlorinated Biphenyl (PCB) Activity Data System (PADS).
HMIRS	The Hazardous Materials Information Reporting System (HMIRS) identifies hazardous material spill incidents reported to the U.S. Department of Transportation (DOT).
U.S. ENG Controls	The U.S. Engineering Controls (U.S. ENG CONTROLS) database is a listing of sites with engineering controls such as caps, building foundations, liners, and treatment methods to create pathway elimination for regulated substances to enter the environmental media or effect human health, in place.
U.S. INST Controls	The U.S. Institutional Controls (U.S. INST CONTROLS) database is a listing of sites with institution controls including administrative measures, construction restrictions, property use restrictions, and post remediation

care requirements intended to prevent exposure to contaminants remaining onsite, in place.

SHWS — The Solid and Hazardous Waste (SHWS) site database is the states' equivalent to CERCLIS.

CAT — The category list (CAT) database is the states' list of sites on the Notice of Response Action, NPL, Pre/Proposed NPL, Completed Remedial Action, Site Remediation Program, Federal Facilities, and Cleanup Started and/or Completed sites.

SRP — The site remediation program (SRP) database identifies the status of all voluntary remediation projects administered through the pre-notice site cleanup program (1989 to 1995) and the site remediation program (1996 to the present.)

MLTS — The Material Licensing Tracking System (MLTS) identifies sites that possess or use radioactive materials and which are subject to Nuclear Regulatory Commission (NRC) licensing requirements.

MINES — The Mines Master Index File (MINES) database contains all mine identification numbers issued for mines active or opened since1971.

NPL Recovery — The federal Superfund liens (NPL Recovery) database identifies properties which the U.S. Environmental Protection Agency (EPA) has filed a lien against in order to recover remedial action expenditures or when the property owner receives notification of potential liability.

PADS — The PCB Activity Database System (PADS) identifies generators, transporters, commercial stores, and/or brokers and disposers of PCBs who are required to notify the EPA of such activities.

DOD — The Department of Defense Sites (DOD) database lists federally owned or administered lands, administered by the DOD, that have any area equal to or greater than 640 acres.

Indian Reserv — The Indian Reservations (Indian Reserv) database lists Indian administered lands of the U.S. that have any area equal to or greater than 640 acres.

FUDS	The formerly used defense sites (FUDS) database lists sites which are former U.S. Defense sites properties where the U.S. Army Corps of Engineers is actively working or will take necessary cleanup actions.
ODI	The Open Dump Inventory (ODI) database is a list of disposal facilities which do not comply with one or more of Part 257 or Part 258 Subtitle D Criteria.
UMTRA	The uranium mill tailings site (UMTRA) database is a list of 24 inactive uranium mill tailings sites in Oregon, Idaho, Wyoming, Utah, Colorado, New Mexico, Texas, North Dakota, South Dakota, Pennsylvania, and on Navajo and Hopi tribal lands, which were targeted for cleanup by the U.S. Department of Energy.
RAATS	The RCRA Administrative Action Tracking System (RAATS) identifies records based on enforcement actions issued under RCRA pertaining to major violators, and includes administrative and civil actions brought by the EPA.
TRIS	The Toxic Release Inventory System (TRIS) identifies emissions of certain chemicals from facilities as reported on the toxic chemical release form (Form R).
TSCA	The Toxic Substances Control Act (TSCA) database identifies manufacturers and importers of chemical substances included on the TSCA Chemical Substance Inventory list.
SSTS	The Section 7 Tracking System (SSTS) database lists sites which are required to register pesticides with the EPA.
FTTS INSP	The Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA) / TSCA Tracking System database identifies administrative cases and pesticide enforcement actions and compliance activities related to FIFRA, TSCA, and Emergency Planning and Community Right-to-Know Act (EPCRA).
DRYCLEANERS	The DRYCLEANERS database lists dry cleaning facilities in the state.
IMPDMENT	The surface impoundment inventory (IMPDMENT) lists industrial, municipal, mining, oil & gas, and large agricultural impoundments in the state.

BROWNFIELDS	The BROWNFIELDS database is a list of Municipal Brownfields Redevelopment Grant Program projects in the state.
UST	The underground storage tank (UST) database lists underground storage tanks registered in the state.
LUST	The leaking underground storage tank (LUST) database identifies leaking underground storage tanks that have been reported in the state.
TRUST	The TRUST database tracks the reimbursement of costs approved and paid to eligible applicants in the state LUST TRUST program.
Manu Gas Plants	The former manufactured gas sites (Manufactured Gas Plants) database identifies the existence and location of coal gas sites.
Hist Auto Stations	The Historic Auto Stations database is a list of potential historic gas station/filling station/service station sites based on research by EDR.
Hist Dry Cleaners	The Historical Dry Cleaners database is a list of potential historic dry cleaner sites based on research by EDR.

- Events Analysis retained EDR to conduct a search for historic aerial photographs for the site. Events Analysis reviewed aerial photographs of the site from 1953, 1972, 1988, and 1994. Facility personnel provided Events Analysis with aerial photographs of the site taken on November 15, 1982 and July 15, 2004, for review.
- Events Analysis retained EDR to conduct a search for historic maps, including Sanborn fire insurance maps, for the site. EDR has certified Sanborn fire insurance maps were not available for the site (Appendix C). U.S. Geological Survey (USGS) historical topographic maps prepared in 1908, 1960, 1972, 1980, 1993, and 1998, were provided by EDR and reviewed by Events Analysis.
- Historic city directories were reviewed to evaluate former occupants of the subject property and surrounding properties. City directories were reviewed for the years 1954, 1964, 1969, 1974, 1980, 1985, 1990, and 2002 were reviewed.
- Various previous environmental reports were reviewed. A complete list of the documents is provided in the "References" section of this report.
- Events Analysis met with (P) [redacted] general counsel FBI-Chicago at the FBI Chicago office on April 20, 2006, to discuss the environmental issues at the

subject property. (P) [redacted] provided Events Analysis a copy of the report entitled, "Briefing Book FBI Range."

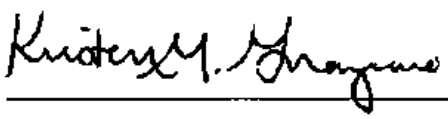
- A chain-of-title search was not requested.

Disclaimer

Portions of this report are based on documents and oral information that Events Analysis has not independently verified. While this report is accurate to the best of Events Analysis ' knowledge and belief, Events Analysis cannot guarantee the completeness or accuracy of any descriptions or conclusions based on the supplied information. Events Analysis did not visually inspect the approximately 2,975 portion of the subject property located in Lake Michigan.

Signature of the Preparer

Kristen M. Graziano, project director of Events Analysis, prepared this report. Ms. Graziano's resume is included in Appendix D.



Kristen M. Graziano

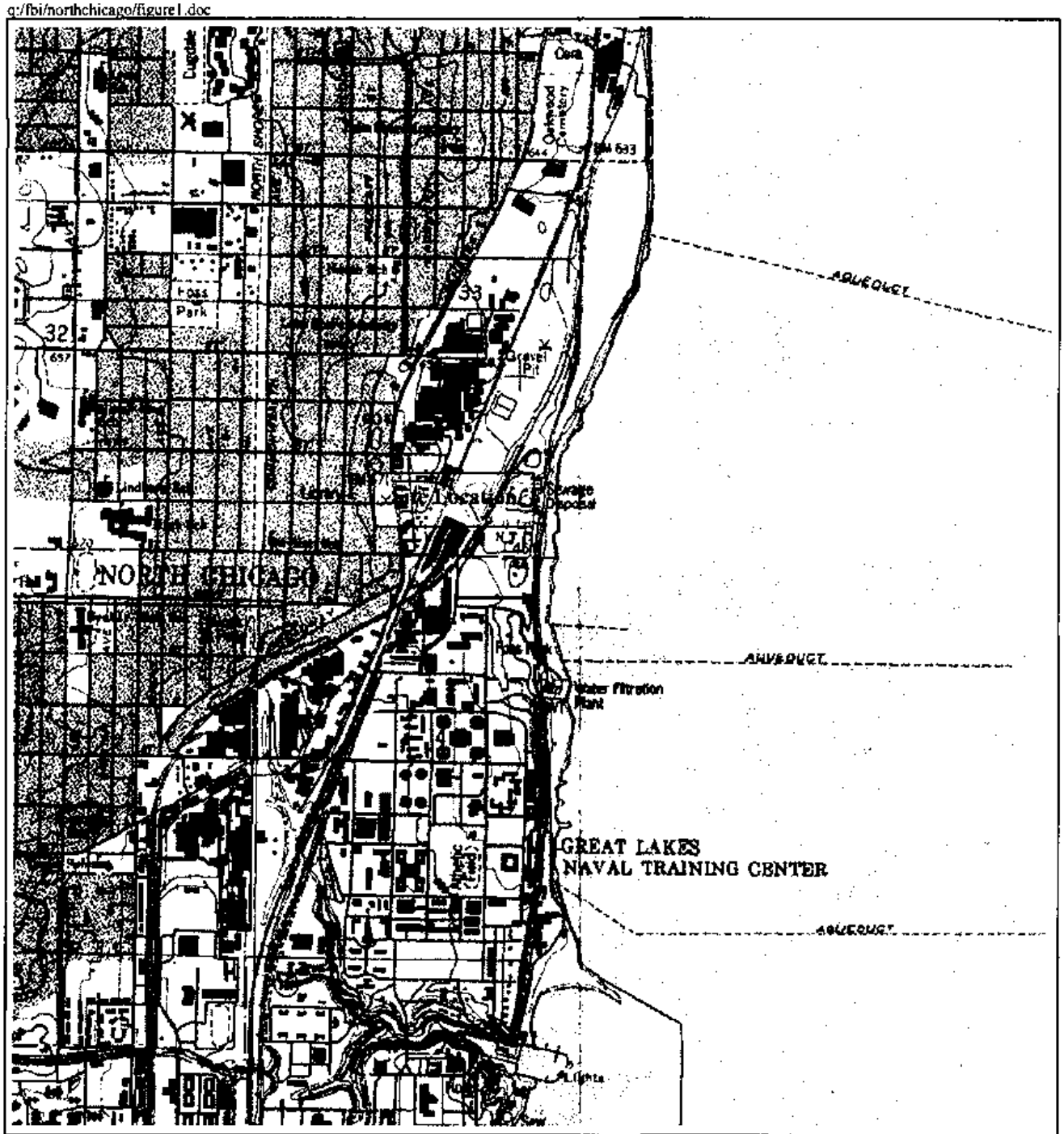
Assessment of Environmental Risks at the FBI Great Lakes Firing Range in North Chicago, Illinois

General Description

The FBI Great Lakes Firing Range is located at 890 Foss Park Avenue in North Chicago, Lake County, Illinois, and is comprised of 10 buildings and two firing ranges situated on an approximately 14.15-acre parcel of land. The subject property is located approximately 32 miles north of the city of Chicago. A triangular-shaped, less than 1-acre parcel of land, also owned by the FBI, is located on the west side of Foss Park Avenue. The parcel was vacant at the time of the site visit. In addition, the FBI property includes approximately 2,975 acres of Lake Michigan, owned by the FBI. The area of Lake Michigan has been codified as an impact in the Code of Federal Regulations and is marked on Lake Michigan navigation charts to prevent boats from using the area (Figure 2). Major features of the subject property include:

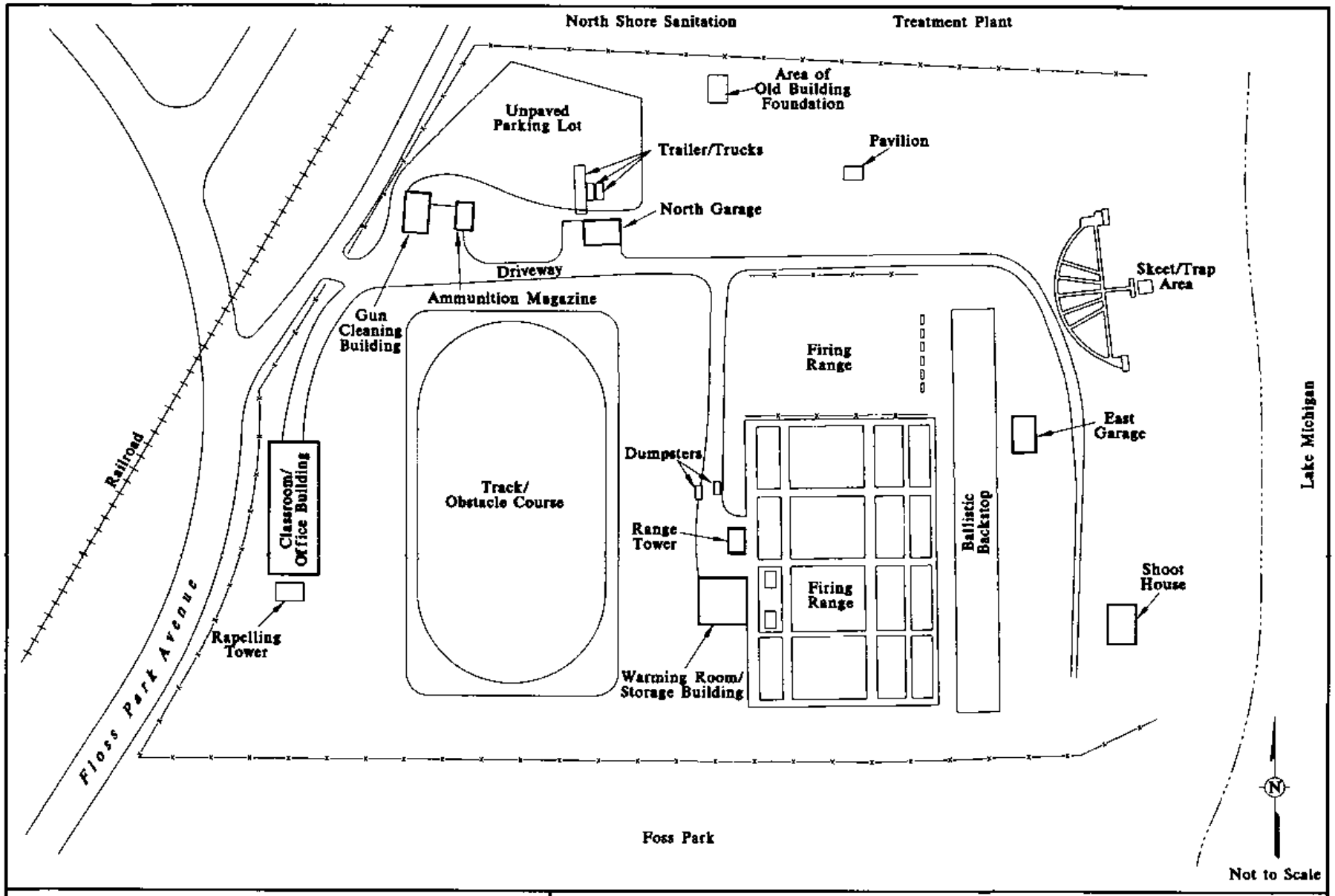
- classroom/office building (approximately 4,800 square feet)
- gun cleaning building (approximately 720 square feet)
- ammunition magazine (approximately 325 square feet)
- north garage (approximately 620 square feet)
- range tower (approximately 800 square feet)
- warming room and storage building (approximately 1,600 square feet)
- shoot house (approximately 4,700 square feet)
- east garage (approximately 520 square feet)
- skeet and trap area (approximately 100 square feet per building)
- two concrete block shotgun training towers (each approximately 200 square feet)
- rappelling tower (approximately 512 square feet)
- earthen ballistic backstop (approximately 12,000 square feet)
- a running track and obstacle course
- an outdoor pavilion
- a triangular parcel on west side of Foss Park
- an unpaved parking lot

g:/fbi/northchicago/figure1.doc



Events Analysis Corporation
11911 Freedom Drive, Suite 900
Reston, Virginia 20190
(P) [redacted]

Figure 1
Site Location
FBI Great Lakes Firing Range
North Chicago, Illinois



EAC

EVENTS ANALYSIS CORPORATION
11911 FREEDOM DRIVE SUITE 900
RESTON, VIRGINIA 20190
(P) [redacted]

Figure 2
Site Layout
FBI Great Lakes Firing Range
North Chicago, Illinois

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Currently, the FBI uses the subject property to train FBI agents (observer/sniper, SWAT, street survival, firearms instructor, etc.). The training activities include field and classroom instruction. In addition, the FBI allows approximately 40 local law enforcement, and military, and federal law enforcement agencies to use the firing range for training and practice purposes. The subject property is also used as a staging area in major Chicago cases where it is necessary to practice arrest and/or seizure methods. The range is also used to conduct fitness indicator tests on a semi-annual basis. The range operates from 6:00 A.M. to 6:30 P.M., 7 days per week, 365 days per year. The employees onsite include four agents and one weapons technician.

The subject property is zoned "PL", for public land, because it is owned by the United States, by the city of North Chicago. The subject property is bordered to the east by Lake Michigan; to the west by Foss Park followed by the vacant parcel, the Elgin, Joliet and Eastern Railroad, and Smurfit-Stone Containers Incorporated, a manufacturer of combined board sheets used as shipping containers; to the north by the North Shore Sanitation District Sewage Treatment Plant; and to the south by Foss Park, a state park. The nearest residence is a residential development located approximately 0.50 to 1 mile west of the subject property.

Other than temporary structures, facility personnel reported that the FBI has not removed or demolished any buildings since occupying the site. Reportedly, the FBI plans to make improvements to the facility's perimeter fence, track and obstacle course, the construction of an additional shoot house building, and the construction of a new ballistic backstop equipped with a lead filtration system and granular absorbent material. During the site inspection, Events Analysis observed evidence of a former building foundation along the north edge of the property in an area currently covered by trees and other vegetation. No evidence of staining or stressed vegetation was observed in the area. Facility personnel reported that the local fire department reported that the original building burned down.

A fence that is approximately 4 feet in height is located along the north and south borders of the property. An earthen path is present along the east edge of the property and extends to the edge of Lake Michigan where evidence of two former docks was observed during the site visit. A gravel parking lot is located north of the gun cleaning building, and an unpaved driveway is located north of the classroom/office building and runs west. A decommissioned bus is located on the east side of the property, east of the east garage. The bus is used for training purposes.

The classroom/office building, a single-story building, was constructed in approximately 1984. The building is constructed of a steel frame and enameled steel clad structure on reinforced concrete footings and floor. The building includes a weight room, storage room, classroom, offices, locker rooms, and laundry room. Approximately 250 weapons are stored onsite in combination safes in the building's storage room (i.e., eye and ears room). A wooden deck is located outside on the south side of the building. Various grill equipment was observed being stored on the deck at the time of the site visit. The building is surrounded by landscape.

The gun cleaning building, a single-story building, was constructed in the 1940s. The building is constructed of wood with no heat or plumbing.

The ammunition magazine building, a single-story building, was constructed in the 1940s. The building is constructed of reinforced concrete and a concrete roof. At the time of the site visit, the roof was visibly damaged. The building is used to store ammunition, hand grenades, and various compressed gases, including tear gas and smoke.

The north garage, a single-story building, was constructed in the 1990s. The building is constructed of metal walls and a concrete floor. The building is used to store landscaping equipment, golf carts, light fixtures, maintenance equipment, and miscellaneous chemicals.

The range tower was constructed in the 1970s. The three-story building is constructed of concrete block. The range tower is used to observe firing range operations and to signal boats away from the impact zone in Lake Michigan.

The warming room and storage building, a single-story building, was constructed in approximately 1991. The building is constructed of concrete, and is used to store ammunition, targets, shields, and other training equipment. Training operations are also conducted inside the building.

The shoot house, a single-story building, with an observation level, was constructed in May 2005. The shoot house is constructed of a metal roof, wood beams, and a gravel floor surface. The building is comprised of various rooms used for tactical training.

The east garage, a single-story building, was constructed in the 1940s. At the time of the site visit, the building was visibly damaged and the roof collapsing. The building is used for miscellaneous equipment storage.

The skeet and trap area was constructed in approximately the 1940s. The are is comprised of three buildings: the south, center, and north buildings. The south and north buildings are two stories each. The skeet and trap area is used for target practicing.

The pavilion was constructed circa 2002, and is constructed of a cement floor with wood beams and a metal roof. The pavilion is used for the FBI picnics, and is equipped with various grills.

The rappelling tower was constructed in 2006. The building is constructed of wood beams and wood floors and is 5 stories. The tower is used for training by FBI and other visiting law enforcement for training activities.

Site History

Based on a review of previous reports, memorandums, and letters, and historic records, the subject property was acquired by the U.S. Government on November 4, 1918, from the American Steel and Wire Company. The original acquisition was comprised of 36.59 acres through condemnation authorized by then acting Secretary of the Navy, Franklin D. Roosevelt. Subsequently, some of the acreage, including the land comprising present day Foss Park, was deeded out. From approximately 1918 to 1976, the Marine Corps used the site as a firearms range. During World War II, the Navy fired 3-inch naval guns from the facility at barges pulling targets in the impact area in Lake Michigan. The site was also used by the Navy for firearms training using a .50 caliber machine gun and potentially 20 millimeter shells were also used. The onsite pistol range was constructed in 1941. Under a lease agreement with the Navy, the FBI started using the subject property in approximately 1976, at which time, the FBI also started making improvements to the land at the site. By a letter dated August 8, 1987, the Regional Administrator of the General Services Administration (GSA) transferred the subject property to the FBI for $1.00.

Environmental Setting

According to the U.S. Geological Survey (USGS), Waukegan, Illinois 7.5 Minute Quadrangle (revised 1998), the ground elevation of the subject property is approximately 642 feet above mean sea level. The topography at the site is flat and slopes slightly to the southeast with the exception of the earthen ballistic backstop, which slopes to the west.

Lake Michigan is located on the east portion of the subject property. There are no other surface water bodies at the subject property. Based on the topography of the site, and the location of Lake Michigan, groundwater flow is estimated to be to the east.

According to the EDR report, the dominant soil at the subject property is the Middle Silurian (Niagoraran) series and consists of silt loam. The soil type is characterized as well drained soil with intermediate water holding capacity and moderate infiltration rates. The EDR report indicates that groundwater in the area is estimated to be greater than 6 feet below the ground surface.

According to the Federal Emergency Management Agency (FEMA) Flood Insurance Rate Map, the subject property is located within a 100-year flood zone. The subject property is not listed on the U.S. Fish and Wildlife's National Wetland Inventory.

Aerial Photographs

Events Analysis reviewed aerial photographs of the site from 1953, 1972, 1982, 1988, 1994, and 2004.

In the 1953 aerial photograph, the subject property appears to be occupied by a firing range. Two buildings are visible in the location of the present day gun cleaning and ammunition magazine buildings. A firing range and building structure are present in the location of the present day unpaved parking lot. The building structure appears to be in the area where Events Analysis observed evidence of a former building structure along the north property boundary. Two bunkers are visible in the location of the present day backstop and the sniper hill. Approximately four structures appear on the east edge of the property, in the current location of the skeet and trap area and east garage. Two docks are present in Lake Michigan to the east of the firing range. The small triangular parcel of land to the west of Foss Park Avenue is vacant, and the railroad is present west of the parcel followed by a large industrial building. Foss Park is present to the south of the subject property, and the use of the property to the north is indeterminable. Industrial and residential properties are present to the northwest.

In the 1972 aerial photograph, the subject property appears to be primarily unchanged since 1953; however, the two docks visible in the 1953 aerial are not present. Also, a square-shaped portion of the property in the firing range appears to be cleared. The firing range area and building that were in the northwest corner of the subject property (current parking lot area) is not present. The surrounding properties are unchanged; however, features on the property to

the north appear to be wastewater treatment operations. Increasing development is present on the properties to the north.

In the 1982 aerial photograph, the classroom/office building, gun cleaning building, ammunition magazine, and the towers north of the east garage are visible on the subject property. A building structure is visible in the location of the foundation observed along the north side of the property during the site visit.

In the 1988 aerial photograph, the subject property's firing range grid pattern is visible on the eastern portion of the site. A structure is visible in the present location of the range tower building. A building structure is present in the location of the present day classroom/office building, and a driveway leads from the building to the north and then eastward the same as it appeared during the site visit. A third building is present immediately south of the parking lot, and appears to be in the location of the present north garage. The surrounding properties appear primarily unchanged.

In the 1994 aerial photograph, the clarity of the photograph is poor; however, the subject property appears to be unchanged since the previous aerial photograph with the exception of the track. The surrounding properties appear primarily unchanged.

In the 2004 aerial photograph, the subject property appears as it did during the site visit; however, the shoot house and rappelling tower are not present. The warming room and storage building are visible adjacent to the range tower. The east garage is visible adjacent to the backstop. The north garage is present north of the track. A trailer is parked on the parcel located west of Foss Park Avenue. The property west of the vacant parcel, formerly occupied by a large industrial building, is vacant with the exception of construction equipment stored onsite. The other surrounding properties are primarily unchanged.

The aerial photograph evidence that the parking lot was historically used as a firing range is considered a recognized environmental condition, because the potential exists for lead or other metals to have impacted to the surface and groundwater.

Historic Maps

EDR certified that no historic fire insurance maps were available for the subject property (Appendix C.) Events Analysis reviewed USGS historical topographic maps prepared in 1908,

1960, 1972, 1980, 1993, and 1998.

In the 1908 topographic map, the subject property and vicinity are marked as the Great Lakes U.S. Naval Training Station. Various buildings are marked on the Great Lakes U.S. Naval Training Station; however, none appear to be present on the subject property. The Chicago and Milwaukee Railroad (Elgin, Joliet and Eastern Railroad) is located west of the subject property.

In the 1960 topographic map, the subject property is marked with three small building structures along the west edge of the property. The property to the north, in the present location of the North Shore Sanitation District Sewage Treatment Plant is marked, "Sewage Disposal." The U.S. Naval Great Lakes Training Center shows increasing development to the south with two water tanks and a water works marked on the property. A gravel pit is located approximately 4 miles north of the subject property.

The subject and surrounding properties are primarily unchanged in the 1972 and 1980 topographic maps.

In the 1993 topographic map, a building structure is marked in the location of the present classroom/office building on the subject property, and the location of the gun cleaning building. Two other building structures are marked: one is in the south area of the property and the other is located in the vicinity of the east garage. The property south of the subject property is marked as Foss Park. A water filtration plant is marked on the U.S. Naval property in the location of the former waterworks structure. Various industrial-sized buildings are marked on the property to the west and northwest of the subject property.

The subject property is unchanged in the 1998 topographic map with the exception of the track, marked east of the classroom/office building and a square-shaped elevated area in the vicinity of the current firing range. The surrounding properties are primarily unchanged.

The historic topographic map review did not identify any signs of suspect land contaminating activities, such as landfills or bulk storage tank farms, on or in the vicinity of the subject property.

City Directories

Events Analysis reviewed city directories for 1954, 1964, 1969, 1974, 1980, 1985, 1990, and 2002. The subject property was not listed in any of the city directories, and no properties were listed from 700 to 999 Foss Park. No environmental concerns were identified as a result of the city directory review.

Previous Environmental Reports

Events Analysis reviewed a memorandum prepared by the U.S. Navy Commanding Officer, Northern Division, Naval Facilities Engineering Command sent to the Commander, Naval Facilities Engineering Command, dated February 1, 1983. The memorandum references two other closed Navy rifle and/or pistol ranges that were closed as potential sources of lead contamination, and states that a study should be initiated at pistol ranges Navy-wide to determine if lead and heavy metals from pistol range operations are leachable and a source of groundwater contamination under various environmental and climatic conditions.

Events Analysis reviewed a previous environmental report entitled, "Assess the Extent of Environmental Contamination and Consequences of the Proposed Disposal of the Rifle Range," prepared by Environmental Branch, Utilities Division, Northern Division, Naval Facilities Engineering Command, dated September 1984. During the site inspection, unfired rounds of old ammunition and other ordinance items were identified. According to the report, it appeared that the items were embedded within the soil and surface of the subject property. The report states that the FBI routinely collected and detonated the rounds and similar items. Reportedly, rounds, shell casings and other ordnance items were discovered during the excavation for the classroom/office building construction. The report states that, "If the land use of this site is changed, a serious safety hazard would exist unless the Navy has the entire area swept for ordnance and disposes of found ordnance properly." The report also identified the large quantities of lead onsite from the range operations as a potentially serious environmental hazard. The report indicated that based on a variety of weather and other environmental conditions, the lead had a good potential for contaminating groundwater and surface water. The report also identified that any lead and lead compounds migrating from the subject property would most likely impact the aquatic ecosystem of Lake Michigan. The report recommended further studies to determine the impacts of the subject property including: a site

hydrogeology/geology study; lead analysis of soil borings; and analysis of groundwater (installation and development of a minimum of three groundwater monitoring wells.) The reported concluded that the property should be retained by the Navy or be decontaminated/demilitarized before sale.

Events Analysis reviewed a previous environmental report entitled, "Briefing Book, FBI Range." The document included correspondence between FBI and governmental agencies; a Summary Report of a Field Investigation of the site; and a Real Estate Appraisal and Related Studies report. The introductory section of the report, prepared by FBI, states, "It is clear from prior surveys that have been conducted on the property that based on its long history as a firing facility, the property is highly contaminated with lead and considered to be in a militarized state because of the existence of unexploded shells and other ammunition both on the firing range its elf and on the large impact area in Lake Michigan. It is doubtful whether the United States Government, because of potential liability problems, would ever transfer ownership of the property without first ensuring that it was both decontaminated and demilitarized. While exact figures are not available, it is estimated that the decontamination and demilitarization of both the land and impact area would cost millions of dollars to include removal of at least one foot of soil from the entire acreage, sifting of at least four feet of soil on the entire acreage for purposes of insuring that all unexploded ordinance has been removed, and removal of all unexploded ordinance from the impact area in Lake Michigan."

Events Analysis revised the Real Estate Appraisal and Related Studies Report, prepared by (P) [redacted] MAI of Arlington, Virginia on April 25, 1986, which was under the cover of the, "Briefing Book, FBI Range." The report included an evaluation of environmental issues at the site. The report concluded that based on the historic use of the site as a firing range since 1918, the following three environmental impacts were present: "(1) Unexploded ordinances is mixed in the soil mantle, extent and depth of these materials is unknown. (2) Hazardous waste contamination, primarily from lead, makes the surface usable for most commercial, industrial and public uses. (3) Hazardous waste contamination, primarily from lead, may pose a threat to ground water and possibly to lake waters." The report states that subsequent to the FBI's occupancy of the range, the berm behind the target area was partially decontaminated because the lead and copper content were so high that firing into the range caused bullet splattering. The partial decontamination was conducted by Browning Ferris Industries (BFI) at an unreported

date. The removed materials contained 35 percent lead and 20 percent copper and were disposed of offsite. At the time, BFI estimated that the cost to decontaminate the site and transport lead waste and possible live rounds ranged from $670,000 to $2 million.

Events Analysis reviewed a report entitled, "Initial Assessment Study, Naval Complex (NC), Great Lakes, Illinois," prepared by Rogers, Golden & Halpern in Association with BCM Eastern, Inc. in March 1986. The report documents that the subject property is considered contaminated with hazardous waste.

Events Analysis reviewed a February 23, 2000, memorandum prepared by (P) [redacted] of FBI-Chicago regarding a firing range inquiry from Congressman Porter to relocate the FBI firing range. The memorandum states, "The cost of decontaminating current FBI land would probably be in the millions."

Events Analysis reviewed a letter dated March 7, 2000, from the FBI to Congressman Porter regarding the relocation of the FBI firing range. The letter states, "...the Lake Michigan property could not be conveyed in its present state without a substantial cleanup effort that would be mandated by the Environmental Protection Agency. Current regulations dictate the maximum acceptable lead level of the soil. As the site has been utilized as a firing range since 1981, it appears the soil content would far exceed the acceptable level. In 1986, the Navy...estimated that it would cost $554,000 to remove the ordnance and explosives residue from the area in order to make it safe for conveyance...it could have cost as much as $1 to $2 million dollars, which a private consultant confirmed for us...The Navy also stated that at that time it would cost $20,000 to $25,000 to study possible lead contamination from the many years of firing. The FBI could not provide funding for any cleanup, and this would necessarily fall upon the conferee should such a transfer take place." Further, the letter states that if the property were to be released by FBI, that the GSA would require FBI to notify GSA of the potential transaction, and that GSA would be required to offer the property to other federal agencies through the federal transfer program, requirement payment to the GSA equal to the property's fair market value. The requirement can only be waived by approval from the Office of Management and Budget. Further, if no federal agencies were to acquire the property, it is then screened for interest from state and local government agencies, and the Department of Housing and Urban Development.

Events Analysis reviewed a memorandum prepared by (P) [redacted] of the FBI-Chicago, dated September 4, 2002. The memorandum included a recommendation that existing berm onsite should be excavated and harvested for lead, and that afterwards, a layer of dirt should replace the materials removed from the berm.

Events Analysis reviewed a proposal for the FBI-Chicago Range Cleanup, dated April 14, 2006, prepared by TRS Range Services, LLC of Charleston, South Carolina. TRS' scope of services included the removal and recycling of lead from the onsite earthen ballastic backstop which is approximately 400 feet wide with a slope height ranging from 20 to 30 feet. In addition, TRS proposed to install a ballistic granular rubber backstop and target buffer backstop as well as a ballastic wall. The total cost estimate to complete the services ranged from $1.2 to $1.3 million.

Materials Handling and Storage Practices

The primary material used onsite by FBI is ammunition. The majority of the ammunition onsite is stored in boxes on shelves and on the floor of (H) [redacted] which is locked and secured. In addition, some ammunition is stored in (H) [redacted] (H) [redacted] The FBI stores small containers (i.e., less than 5-gallon) of chemicals onsite. In the classroom/office building, the FBI stores Hoppe's lubricating oil; Hoppe's semi-auto 9, a gun cleaner; Mili-Tech Cleaner, a gun cleaner; Cap Stun, a gun cleaner; commercial cleaners such as Quick Scrub II, a water-based cleaner/degreaser, Ajax, a water-based cleaner, and bleach; Sure Trac a tile cleaner; glass cleaner; and laundry soap. The materials are stored in containers on shelves in the building. In the (H) [redacted] the FBI stores acetone; mineral oil; Mili-Tech; oil; and Shooter's Choice gun cleaner in two flammables cabinets and at work stations. In the (H) [redacted] the FBI stores gasoline; diesel fuel; propane; carbon dioxide; transmission fluid; xylol; non-chlorinated degreaser; lighter fluid; insecticide; lubricating oil; water proofing coating; and lamp oil at work stations and in two flammables cabinets. In the (H) [redacted] the FBI stores commercial cleaners, ammunition, and cardboard targets. Ammunition and clay targets are stored in boxes in the skeet and trap area.

Incoming materials are transported by truck and are received at the gate entrance.

No parts washers were observed onsite, and according to site personnel, no chlorinated solvents are reportedly used at the subject property.

Solid and Hazardous Waste

According to site personnel, no Resource Conservation and Recovery Act (RCRA) hazardous waste is generated onsite. Based on a review of state and federal databases, the FBI is not listed as a registered generator of hazardous waste, and thus, appears to be operating as a conditionally-exempt small quantity generator of hazardous waste. Nonhazardous waste streams generated onsite include wipes and towels contaminated with gun solvent and gun cleaning residue; cardboard targets; empty ammunition containers; ammunition blast comprised of lead; brass ammunition casings; empty chemical containers; spent fluorescent light bulbs; and food scraps.

Some of the waste streams currently managed as nonhazardous waste may be hazardous waste. For example, wipes and towels containing gun cleaner solvent and gun residue, including lead, were discarded in trash cans throughout the gun cleaning room. Based on the properties of the solvent and gun residues, the waste wipes and towels may be considered hazardous waste. Also, though the FBI reportedly has not disposed of the material yet, a sand and bullet mixture located in a gun discharging area of the gun cleaning room may contain metal residues that would be considered hazardous. Last, reportedly, lead blast material observed throughout the subject property, is harvested by the FBI and discarded in the trash. The FBI should conduct a comprehensive characterization of the aforementioned waste streams using laboratory analysis or generator knowledge to determine whether the waste streams are hazardous.

Reportedly, the FBI sends brass bullet casings offsite for recycling. However, no documentation of the shipments is maintained onsite. As a good management practice, the FBI should maintain documentation of the offsite shipments of copper for recycling.

Spent fluorescent light bulbs are occasionally generated by the FBI. The bulbs are disposed of with the general trash. Spent fluorescent light bulbs may be characterized as hazardous waste, and thus, the FBI should discontinue its practice of throwing spent fluorescent light bulbs into the general trash.

Nonhazardous waste is stored in three dumpsters; one dumpster is located in the unpaved parking lot and two dumpsters are adjacent on the west side of the warming room and storage

building on the north side of the building. The dumpsters are serviced by Waste Management, Inc., of North Chicago, Illinois.

Events Analysis reviewed the RCRA Information System (RCRIS) and Comprehensive Environmental Response, Compensation, and Liability Act Information System (CERCLIS) lists on the Environmental Protection Agency's (EPA) Envirofacts and The Right-To-Know Network's web sites for the waste handling facility currently used by the facility. Envirofacts provides access to several EPA databases that offer information about environmental activities that may affect air, water, and land anywhere in the United States. Waste Management was not listed on any of the databases searched. Based on the absence of violations reported for this facility, no environmental concerns were identified with the disposal facility used by the tenants of the subject property.

At the time of the site visit, Events Analysis observed various discarded tubes of lubricant and empty containers of oil in the area covered by vegetation along the north border of the subject property. No evidence of stressed vegetation or staining was observed, thus, the discarded materials are considered *de minimis* and are not indicative of a recognized environmental condition.

Facility personnel reported that landscape waste, such as trees, are burned onsite. No other waste materials are burned onsite. There are no sumps, pits, trenches, or other structures onsite that receive waste. No evidence of onsite waste disposal was identified during Events Analysis' site visit. As a good management practice, the FBI should discontinue the practice of burning landscape waste onsite.

Underground and Aboveground Storage Tank

Currently, no aboveground or underground storage tanks are located at the site, and none were listed on the regulatory databases searched by Events Analysis.

The FBI stores less than 1,320 gallons of oil and petroleum products onsite, and thus, currently, is not subject to the spill prevention, control and countermeasure plan requirements.

Water, Wastewater, and Storm Water

The subject property is supplied with potable water from the city of North Chicago. According to facility personnel, there are no groundwater wells or drinking water wells located

on the subject property, and none were observed during the site visit. No vehicle washing occurs onsite.

Based on observations during the site visit, the wastewater streams discharged from the subject property are sanitary wastewater and washwater from the onsite laundry room from the classroom/office building. Wastewater is discharged to the North Shore Sanitary District Sewage Treatment Plant, located along the north border of the subject property. Facility personnel reported that lead contaminated clothing and towels are washed in the laundry room onsite. The wash water is discharged to the sanitary sewer system. Currently, FBI does not have a wastewater discharge permit. Based on observations during the site visit, it appears that the facility may be required to obtain a wastewater permit for its discharges of lead-containing wastewater.

Open floor drains were observed in the restrooms, shower areas, and in the laundry room. In addition, an open sump structure was observed in the northwest corner of the laundry room.

A circular-shaped opening was visible in the north garage. The opening appeared to lead to the ground surface beneath the building and no piping was observed in the opening. As a good management practice, to prevent a release of any chemicals or residue from the garage from reaching the ground surface, the FBI should close the opening in the floor of the north garage.

Minor oil stains were observed on the floor in the laundry room area inside the classroom/office building. The staining is considered a *de minimis* condition and is not indicative of a recognized environmental condition.

A compressor is present in the basement of the range tower building; however, no open floor drains were observed in the compressor room.

Storm water flows from the building roofs and infiltrates the ground surface. The storm water either infiltrates the ground surface or flows southeast. A storm water drain observed at the subject property was located at the north end of the firing range. In addition, a storm water drainage pipe was observed discharging at the unpaved driveway located on the east side of the track. Storm water from the east side of the property infiltrates the ground surface and/or is discharged through the storm water pipe to the unpaved driveway east of the track. Storm water from the firing range area and earthen ballistic backstop infiltrates the ground and/or flows west and north to the open storm water drain. Facility personnel were uncertain of the storm water

drain discharge location; however, the potential exists that the water is discharged to Lake Michigan. The potential for lead-containing storm water runoff from the firing range and earthen ballistic backstop to have impacted the soil and Lake Michigan is considered a recognized environmental condition.

Various materials were stored outdoors at the time of the site visit including: trailers, a boat, buoys, and vehicles at the parking lot; dumpsters in the parking lot and driveway area; grills on the classroom/office building deck and at the pavilion area; and a bus stored north of the shoot house.

The FBI does not maintain a storm water permit. The facility's operations appear to be exempt from the storm water requirements; however, the FBI should verify its SIC code to determine the applicability of the storm water permitting requirements.

Air Emissions

The FBI does not maintain any air permits for emissions onsite. Air emission sources onsite include the firing range; gun cleaning operations; and emissions from shooting at the shoot house. As a good management practice, the FBI should prepare an air emissions inventory of operations onsite to verify that an air permit(s) is not required.

The classroom/office building is heated by a natural-gas powered central heating system, and cooled by two pad-mounted air conditioning units. None of the other buildings are heated or cooled.

At the time of the site visit, none of the appliances or equipment onsite appeared to contain greater than 50 pounds of an ozone-depleting substance (ODS).

Polychlorinated Biphenyls

Polychlorinated biphenyls (PCBs) were used in transformer and hydraulic oils until approximately 1978. According to a previous environmental report (Environmental Branch, Utilities Division, Northern Division, Naval Facilities Engineering Command, 1984), no PCBs are present at the subject property, and all electrical equipment onsite is owned by the local utility company, Commonwealth Edison. Various pole-mounted transformers were observed along Foss Park Avenue, on the subject property, and appeared to be the power supply to the subject property. No stains or leaks were observed near the transformers; however, without

further documentation such as laboratory analytical results, this information cannot be confirmed. The FBI should request information on the PCB content of the utility-owned transformers at the subject property.

Based on the construction date of the buildings onsite, the potential exists for PCB light ballasts to be present onsite. The FBI should develop a policy for the management of spent ballasts to ensure that any PCB-containing ballasts are disposed properly.

Events Analysis did not observe any hydraulic equipment in use. No other equipment suspected of containing PCBs was observed onsite.

Asbestos

Events Analysis was requested to determine if any readily observable building materials had the potential to contain asbestos. We were not contracted to perform a comprehensive asbestos survey or testing of materials for asbestos content. During the course of the onsite inspection, Events Analysis observed surfacing material and thermal systems insulation, which are building materials that may contain asbestos. In addition, many of the buildings were constructed before 1981, when asbestos-containing material (ACM) was used in building material.

The Occupational Safety and Health Administration (OSHA) requires facilities to presume that any surfacing material, thermal system insulation, and floor tiles installed before December 21, 1980, contain asbestos, unless testing or other information demonstrates otherwise. Based on observations during the site visit, it appears that the building materials present would be considered presumed ACM.

The classroom/office building was constructed in approximately 1984. During the course of the onsite inspection, Events Analysis observed floor tiles which may contain asbestos. Based on the age of the building, it has the potential to contain asbestos in felt products, flooring materials, roof coatings, and cementitious products such as pipes or shingles. Also, some of the buildings onsite were constructed in 1991, when ACM was still permitted for use in roofing and cementitious building materials. The use of asbestos in building and other materials was discontinued through production bans. The manufacture of asbestos-containing felt products was discontinued through production bans. However, several other asbestos products (e.g., asbestos roof coatings and other asbestos-cement products such as pipes and shingles) scheduled

to be banned in 1996, may still be manufactured. These production bans demonstrate the various building materials that may contain asbestos and the general time period in which they were installed.

The FBI should conduct a comprehensive asbestos survey to identify ACM at the site buildings.

Lead-Based Paint

The use of lead-based paint was phased out in 1978. Therefore, based on the age of the buildings (some constructed in the 1940s), the potential exists for lead-based paint to be present onsite. The FBI should conduct a comprehensive lead-based paint survey of all buildings constructed before 1978.

Management and Practices

In general, the subject property appeared to have average housekeeping and environmental management practices.

The building is equipped with an ADT fire alarm system. Hand held fire extinguishers were observed in the facility. According to facility personnel, with the exception of the former building that burned on the north side of the subject property, no fires or explosions have occurred at the site.

At the time of the site visit, the entrance to the subject property was an open gate. The subject property has a perimeter fence along the south and north borders. Certain areas of the firing range are equipped with photocell-activated night lights, and video cameras are used during the day. The ammunition storage areas are monitored 24 hours in the classroom/office building and the ammunition magazine building. Passive infrared motion sensors are active in classroom/office building. Reportedly, the local police departments patrol the subject property regularly.

Based on information obtained from facility personnel, a facility person at the North Shore Sanitary District Sewage Treatment Plant was hit by debris from a richocheted bullet which was fired at the subject property. The injury was not fatal.

Regulatory Database Search

Events Analysis retained EDR to search federal and state regulatory databases to identify environmental issues that have been reported for the subject property or facilities in the vicinity of the subject property (Appendix B). The search radii specified by the ASTM standard (E1527-00) were used.

The subject property was not listed on any of the databases searched by Events Analysis.

Federal and state databases were also searched to determine the potential for the site to be affected by releases from neighboring properties. Twenty-five sites within a 1-mile radius of the subject property are listed on the databases searched by Events Analysis and EDR. The complete database report, which provides detailed descriptions for each site, is provided in Appendix B.

The neighboring sites that have the greatest potential to have caused environmental contamination are those that have had releases or spills of hazardous materials and those that have had significant environmental releases and underwent or were targeted for remedial investigation or cleanup. The facilities that are in these categories that are of the greatest concern to the subject property are those that are upgradient or in close proximity to the subject property. Based on the topography of the site, and the location of Lake Michigan, groundwater flow is estimated to be to the east. Therefore, based on these criteria, the sites that are of the greatest concern are those west of the subject property. Four sites meeting these criteria were identified in the EDR report.

The Brown Printing site, located 0.125 to 0.25 mile west, northwest of the subject property, is listed on the LUST database for a release from an underground used oil storage tank which occurred in May 1990. The site is listed without a No Further Action (NFA)/No Further Remedation (NFR) letter. Events Analysis contacted Donna Wallace of the Illinois Environmental Protection Agency (IEPA) for additional information on the status of the LUST case. Ms. Wallace reported that currently, the site has not been issued a NFA/NFR because the IEPA has not received a Corrective Action Completion report from the site. Reportedly, during the tank removal activities of the leaking underground storage tank, no groundwater was encountered, and Ms. Wallace indicated that to the best of her knowledge, no groundwater investigation has been performed at the site. Because it appears that the LUST release has not

impacted groundwater, and the responsible party is remediating the site under the direction of the IEPA, this site does not appear to be a concern to the subject property.

The North Chicago Community Development site, located 0.25 to 0.50 mile west, southwest of the subject property, is listed on the SRP database. The site enrolled in the voluntary cleanup program in May 2005; however, no additional information was available. The site is listed with an active status. Because the cleanup activities are being conducted under the IEPA's direction, and the responsible party has been identified, this site does not appear to be a concern to the subject property.

The John Stack site, located 0.25 to 0.50 mile west of the subject property, is listed on the IL NIPC database, as an active or inactive solid waste facility. No releases or remediation activities were reporting for the site. Thus, this site does not appear to be a concern to the subject property.

The Foss Park District site (Sheridan Road/Foss Park Avenue), located 0.25 to 0.50 mile west, northwest of the subject property, is listed on the LUST database for a release from an underground storage tank. The site was issued a NFA/NFR letter on March 22, 2002. Thus, the site does not appear to be a concern to the subject property.

Seven sites in the vicinity of the subject property were identified as "orphan sites" in the EDR database report. These sites are identified as unmappable sites due to imprecise or limited address information (i.e., an incomplete street address or a P.O. box). Therefore, it is difficult to determine the potential for activities at these sites to have affected the subject property. Events Analysis did not observe any of the "orphan sites" in the vicinity of the subject property.

Risk of Onsite Contamination

Based on the results of our Phase I environmental assessment, Events Analysis finds that there is a risk of contamination associated with historic and current operations onsite.

Previous environmental reports document the potential risk of onsite soil and groundwater contamination from use of the subject property, including Lake Michigan, as a firing range since approximately 1918; however, no investigation or remediation activities have been conducted at the subject property to determine the extent of contamination onsite. Thus, Events Analysis considers the historic and current operations onsite to be a risk of onsite contamination, and thus, is considered a recognized environmental condition.

Conclusions and Recommendations

Conclusions

Events Analysis Corporation conducted a Phase I environmental site assessment (ESA) of the FBI Great Lakes Firing Range in North Chicago, Illinois, in accordance with the ASTM Standard Practice E 1527-00 for Environmental Site Assessments: Phase I Environmental Site Assessment Process. Based on a review of applicable documents and on the results of our Phase I environmental assessment, Events Analysis the following recognized environmental conditions:

- The subject property has been used as a firing range by the U.S. military since 1918. Previous environmental reports document the potential risk of onsite soil and groundwater contamination from use of the subject property, including Lake Michigan, as a firing range since approximately 1918; however, no investigation or remediation activities have been conducted at the subject property to determine the extent of contamination onsite. Thus, Events Analysis considers the historic and current operations onsite to be a risk of onsite contamination, and thus, is considered a recognized environmental condition.
- The aerial photograph evidence (1953) that the present north parking lot was historically used as a firing range is considered a recognized environmental condition, because the potential exists for lead or other metals to have impacted to the surface and groundwater.
- The potential for lead-containing storm water runoff from the firing range and earthen ballistic backstop to have impacted the soil and Lake Michigan is considered a recognized environmental condition.

Recommendations

Events Analysis makes the following recommendation to address the recognized environmental conditions identified during the Phase I environmental site assessment:

- The FBI should conduct a comprehensive site investigation to determine the extent of contamination from the firing range operations to soil and groundwater. Before any soil or groundwater sampling activities are conducted, the site should be cleared of all ordnances by a certified professional.

Based on Events Analysis' review of compliance management practices, Events Analysis recommends the following to improve the environmental performance of the facility:

- The FBI should conduct a comprehensive characterization of waste streams generated onsite using laboratory analysis or generator knowledge to determine whether the waste streams are hazardous.
- As a good management practice, the FBI should maintain documentation of the offsite shipments of copper for recycling.
- Spent fluorescent light bulbs may be characterized as hazardous waste, and thus, the FBI should discontinue its practice of throwing spent fluorescent light bulbs into the general trash.
- As a good management practice, the FBI should discontinue the practice of burning landscape waste onsite.
- As a good management practice, to prevent a release of any chemicals or residue from the garage from reaching the ground surface, the FBI should close the opening in the floor of the north garage.
- The FBI should verify its SIC code to determine the applicability of the storm water permitting requirements.
- The FBI should prepare an air emissions inventory of operations onsite to verify that an air permit(s) is not required.
- The FBI should request information on the PCB content of the utility-owned transformers at the subject property.
- As a good management practice, the FBI should develop a policy for the management of spent ballasts to ensure that any PCB-containing ballasts are disposed properly.
- The FBI should conduct a comprehensive asbestos survey to identify ACM at the site buildings.
- The FBI should conduct a comprehensive lead-based paint survey of all buildings constructed before 1978.

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Exhibit 2

to Declaration of Mark S. Lorenz

Table 1
FBI Great Lakes Firing Range
North Chicago, Illinois
Sediment Sample Results

Sample ID:	**SED-01**		**SED-02**		**SED-03**		**SED-04**	
Sampling Date:	10/03/07	Lab Qualifier	10/03/07	Lab Qualifier	10/03/07	Lab Qualifier	10/03/07	Lab Qualifier
VOCs (µg/Kg)								
Acetone	27	U	14	U	10	U	12	U
Benzene	0.97	J	0.95	J	3.4	U	0.56	J
Bromodichloromethane	4.3	U	3.9	U	3.4	U	3.2	U
Bromofluorobenzene	44		41		36		32	
Bromoform	4.3	U	3.9	U	3.4	U	3.2	U
Bromomethane	4.3	U	3.9	U	3.4	U	3.2	U
2-Butanone	11	U	9.7	U	8.5	U	8.1	U
Carbon disulfide	8.1		4.2		2.2	J	5.2	
Carbon tetrachloride	4.3	U	3.9	U	3.4	U	3.2	U
Chlorobenzene	4.3	U	3.9	UJB	3.4	UJB	0.52	J
Chloroethane	4.3	U	3.9	U	3.4	U	3.2	U
Chloroform	4.3	U	3.9	U	3.4	U	3.2	U
Chloromethane	4.3	U	3.9	U	3.4	U	3.2	U
Cyclohexane	2.9	J	3.9	U	3.4	U	1.3	J
1,2-Dibromo-3-Chloropropane	4.3	U	3.9	U	3.4	U	3.2	U
Dibromochloromethane	4.3	U	3.9	U	3.4	U	3.2	U
1,2-Dibromoethane	4.3	U	3.9	U	3.4	U	3.2	U
Dibromofluoromethane	49		42		36		31	
1,2-Dichlorobenzene	4.3	U	3.9	U	3.4	U	3.2	U
1,3-Dichlorobenzene	4.3	U	3.9	U	3.4	U	3.2	U
1,4-Dichlorobenzene	4.3	U	3.9	U	3.4	U	3.2	U
Dichlorodifluoromethane	4.3	U	3.9	U	3.4	U	3.2	U
1,1-Dichloroethane	4.3	U	3.9	U	3.4	U	3.2	U
1,2-Dichloroethane	4.3	U	3.9	U	3.4	U	3.2	U
1,2-Dichloroethane-d4	55		41		38		31	
1,1-Dichloroethene	4.3	U	3.9	U	3.4	U	3.2	U
trans-1,2-Dichloroethene	4.3	U	3.9	U	3.4	U	3.2	U
cis-1,2-Dichloroethylene	4.3	U	3.9	U	3.4	U	3.2	U
1,2-Dichloropropane	4.3	U	3.9	U	3.4	U	3.2	U
cis-1,3-Dichloropropene	4.3	U	3.9	U	3.4	U	3.2	U
trans-1,3-Dichloropropene	4.3	U	3.9	U	3.4	U	3.2	U
Ethylbenzene	4.3	U	3.9	U	3.4	U	3.2	U
Freon 113	4.3	U	3.9	U	3.4	U	3.2	U
2-Hexanone	11	U	9.7	U	8.5	U	8.1	U
Isopropyl Benzene	4.3	U	3.9	U	3.4	U	3.2	U
Methyl Acetate	4.3	U	3.9	U	42		3.2	U
Methyl isobutylketone (MIBK)	11	U	9.7	U	8.5	U	8.1	U
Methylcyclohexane	2.9	J	3.9	U	3.4	U	3.2	U
Methylene chloride	4.3	U	3.9	U	3.4	U	3.2	U
Methyltert-butylether	4.3	U	3.9	U	3.4	U	3.2	U
Styrene	4.3	U	3.9	U	3.4	U	3.2	U
1,1,2,2-Tetrachloroethane	4.3	U	3.9	U	3.4	U	3.2	U
Tetrachloroethene	4.3	U	3.9	U	3.4	U	3.2	U
Toluene	1.7	J	1.9	J	1.3	J	1.2	J
Toluene-d8	42		39		33		31	
1,2,4-Trichlorobenzene	4.3	U	3.9	U	3.4	U	3.2	U
1,1,1-Trichloroethane	4.3	U	3.9	U	3.4	U	3.2	U
1,1,2-Trichloroethane	4.3	U	3.9	U	3.4	U	3.2	U
Trichloroethene	4.3	U	3.9	U	3.4	U	3.2	U
Trichlorofluoromethane	4.3	U	3.9	U	3.4	U	3.2	U
Vinyl chloride	4.3	U	3.9	U	3.4	U	3.2	U
o-Xylene	4.3	U	3.9	U	3.4	U	3.2	U
Xylene, (total)	13	U	12	U	10	U	9.7	U
m&p Xylenes	8.6	U	7.8	U	6.8	U	6.5	U

Table 1
FBI Great Lakes Firing Range
North Chicago, Illinois
Sediment Sample Results

Sample ID:	**SED-01**	Lab Qualifier	**SED-02**	Lab Qualifier	**SED-03**	Lab Qualifier	**SED-04**	Lab Qualifier
Sampling Date:	10/03/07		10/03/07		10/03/07		10/03/07	
Metals (mg/Kg)								
Aluminum	2080		2340		2080		2500	
Antimony	6.5	N	3.3	UN	4.7	N	3.3	UN
Arsenic	20	N	9.1	N	18.6	N	28.6	N
Barium	15	B	11.5	B	13	B	38.9	
Beryllium	0.29	B	0.24	B	0.31	B	0.51	
Cadmium	0.27	B	0.2	B	0.35	B	0.47	B
Calcium	78000	*	77100	*	96100	*	60800	*
Chromium	15.4		14.3		12.5		21.6	
Cobalt	4.9		4.2		5.4		5.3	
Copper	156		47.2		458		294	
Iron	34700		25800		65300		78500	
Lead	1710	*	903	*	1400	*	1760	*
Magnesium	32500	*	37300	*	51600	*	29800	*
Manganese	705		654		718		866	
Mercury	0.017	U	0.017	U	0.017	U	0.023	B
Nickel	16.7		16.6		22.1		25.9	
Potassium	250	BE	341	BE	273	BE	299	BE
Selenium	0.34	UN	0.33	UN	0.34	UN	0.33	UN
Silver	0.14	B	0.07	B	0.31	B	0.21	B
Sodium	262	UB	242	UB	273	UB	340	B
Thallium	4.5	N	3.5	N	10.6	N	10.3	N
Vanadium	15.6		10.7		13.6		29.2	
Zinc	368		153		290		554	
Wet Chemistry (mg/kg)								
Cyanide	0.15	U	0.15	U	0.15	U	0.15	U
Wet Chemistry (S.U.)								
Hydrogen ion	8.57		8.69		7.93		7.7	

µg/kg - micrograms per kilogram
mg/kg - milligrams per kilogram
NS - no standard

Laboratory Qualifiers:
B - method blank contamination, the associated method blank containes the target analyte at a reportable level
E - analyte concentration exceeds calibration range
J - estimated result, result is less than the reporting limit
N - presumptive evidence of target analyte
U - not detected above detection limit
* - duplicate analysis

Table 2
FBI Great Lakes Firing Range
North Chicago, Illinois
Shallow Soil Sample Results

Sample ID:	WSPSB-01		WSPSB-02		WSPSB-03		WSPSB-04		WSPSB-05		WSPSB-06		WSPSB-07		WSPSB-08		WSPSB-09		WSPSB-10		WSPSB-11		WSPSB-12		WSPSB-13		WSPSB-14		WSPSB-15		WSPSB-16	
Sampling Date:	10/02/07		10/02/07		10/02/07		10/02/07		10/03/07		10/03/07		10/03/07		10/03/07		10/03/07		10/03/07		10/03/07		10/03/07		10/03/07		10/03/07		10/03/07		10/03/07	
Depth:	0-2		0-2		0-2		0-2		0-2		0-2		0-2		0-2		0-2		0-2		0-2		0-2		0-2		0-2		0-2		0-2	
		Lab Qualifier		Lab Qualifier		Lab Qualifier		Lab Qualifier		Lab Qualifier		Lab Qualifier		Lab Qualifier		Lab Qualifier		Lab Qualifier		Lab Qualifier		Lab Qualifier		Lab Qualifier		Lab Qualifier		Lab Qualifier		Lab Qualifier		Lab Qualifier
VOCs (µg/Kg)																																
Acetone	18	U	14	U	260		120		130		11.0	UJ	130		42		10	U	95		47		9.5	U	20	U	10	UJ	130		10	UJ
Benzene	1.8	J	0.53	J	4.7	U	4.6	U	5.4	U	0.75	J	4.6	U	4.2	U	1.4	J	4.3	U	4.5	U	1.2	J	0.59	J	0.54	J	4.2	U	0.8	J
Bromodichloromethane	3	U	4.2	U	4.7	U	4.6	U	5.4	U	4.4	U	4.6	U	4.2	U	4.1	U	4.3	U	4.5	U	3.8	U	4.3	U	4.2	U	4.2	U	4.1	U
Bromofluorobenzene	39		48		47		48		60		51		48		45		45		47		46		46		55		45		45		46	
Bromoform	3	U	4.2	U	4.7	U	4.6	U	5.4	U	4.4	U	4.6	U	4.2	U	4.1	U	4.3	U	4.5	U	3.8	U	4.3	U	4.2	U	4.2	U	4.1	U
Bromomethane	3	U	4.2	U	4.7	U	4.6	U	5.4	U	4.4	U	4.6	U	4.2	U	4.1	U	4.3	U	4.5	U	3.8	U	4.3	U	4.2	U	4.2	U	4.1	U
2-Butanone	7.5	U	10	U	21		11	U	13	U	11	U	3.5	J	11	U	10	U	11	U	11	U	9.5	U	11	U	10	U	10	U	10	U
Carbon disulfide	10		2.9	J	1.8	J	2.3	J	5.4	U	4.4	U	2.5	J	3	J	4.1	U	2.7	J	4.5	U	3.8	U	4.3	U	4.2	U	1.4	J	4.1	U
Carbon tetrachloride	3	U	4.2	U	4.7	U	4.6	U	5.4	U	4.4	U	4.6	U	4.2	U	0.97	J	4.3	U	4.5	U	3.8	U	4.3	U	4.2	U	4.2	U	4.1	U
Chlorobenzene	3.0	UJB	4.2	UJB	4.7	UJB	4.6	UJB	5.4	UJB	4.4	UJB	4.6	U	4.2	U	4.1	U	4.3	UJB	4.5	U	3.8	U	4.3	U	4.2	U	4.2	UJB	4.1	UJB
Chloroethane	3	U	4.2	U	4.7	U	4.6	U	5.4	U	4.4	U	4.6	U	4.2	U	4.1	U	4.3	U	4.5	U	3.8	U	4.3	U	4.2	U	4.2	U	4.1	U
Chloroform	3	U	4.2	U	4.7	U	4.6	U	5.4	U	4.4	U	4.6	U	4.2	U	4.1	U	4.3	U	4.5	U	3.8	U	4.3	U	4.2	U	4.2	U	4.1	U
Chloromethane	3	U	4.2	U	4.7	U	4.6	U	5.4	U	4.4	U	4.6	U	4.2	U	4.1	U	4.3	U	4.5	U	3.8	U	4.3	U	4.2	U	4.2	U	4.1	U
Cyclohexane	5.2		3.3	J	4.7	U	4.6	U	5.4	U	3.6	J	4.6	U	4.2	U	5.1		4.3	U	4.5	U	4.8		4.3	U	4.2	U	4.2	U	1.9	J
1,2-Dibromo-3-Chloropropane	3	U	4.2	U	4.7	U	4.6	U	5.4	U	4.4	U	4.6	U	4.2	U	4.1	U	4.3	U	4.5	U	3.8	U	4.3	U	4.2	U	4.2	U	4.1	U
Dibromochloromethane	3	U	4.2	U	4.7	U	4.6	U	5.4	U	4.4	U	4.6	U	4.2	U	4.1	U	4.3	U	4.5	U	3.8	U	4.3	U	4.2	U	4.2	U	4.1	U
1,2-Dibromoethane	3	U	4.2	U	4.7	U	4.6	U	5.4	U	4.4	U	4.6	U	4.2	U	4.1	U	4.3	U	4.5	U	3.8	U	4.3	U	4.2	U	4.2	U	4.1	U
Dibromofluoromethane	32		45		51		49		59		48		51		46		45		48		47		42		49		47		47		45	
1,2-Dichlorobenzene	3	U	4.2	U	4.7	U	4.6	U	5.4	U	4.4	U	4.6	U	4.2	U	4.1	U	4.3	U	4.5	U	3.8	U	4.3	U	4.2	U	4.2	U	4.1	U
1,3-Dichlorobenzene	3	U	4.2	U	4.7	U	4.6	U	5.4	U	4.4	U	4.6	U	4.2	U	4.1	U	4.3	U	4.5	U	3.8	U	4.3	U	4.2	U	4.2	U	4.1	U
1,4-Dichlorobenzene	3	U	4.2	U	4.7	U	4.6	U	5.4	U	4.4	U	4.6	U	4.2	U	4.1	U	4.3	U	4.5	U	3.8	U	4.3	U	4.2	U	4.2	U	4.1	U
Dichlorodifluoromethane	3	U	4.2	U	4.7	U	4.6	U	5.4	U	4.4	U	4.6	U	4.2	U	4.1	U	4.3	U	4.5	U	3.8	U	4.3	U	4.2	U	4.2	U	4.1	U
1,1-Dichloroethane	3	U	4.2	U	4.7	U	4.6	U	5.4	U	4.4	U	4.6	U	4.2	U	4.1	U	4.3	U	4.5	U	3.8	U	4.3	U	4.2	U	4.2	U	4.1	U
1,2-Dichloroethane	3	U	4.2	U	4.7	U	4.6	U	5.4	U	4.4	U	4.6	U	4.2	U	4.1	U	4.3	U	4.5	U	3.8	U	4.3	U	4.2	U	4.2	U	4.1	U
1,2-Dichloroethane-d4	33		49		58		57		68		56		59		53		52		57		51		48		54		52		50		49	
1,1-Dichloroethene	3	U	4.2	U	4.7	U	4.6	U	5.4	U	4.4	U	4.6	U	4.2	U	4.1	U	4.3	U	4.5	U	3.8	U	4.3	U	4.2	U	4.2	U	4.1	U
trans-1,2-Dichloroethene	3	U	4.2	U	4.7	U	4.6	U	5.4	U	4.4	U	4.6	U	4.2	U	4.1	U	4.3	U	4.5	U	3.8	U	4.3	U	4.2	U	4.2	U	4.1	U
cis-1,2-Dichloroethylene	3	U	4.2	U	4.7	U	4.6	U	5.4	U	4.4	U	4.6	U	4.2	U	4.1	U	4.3	U	4.5	U	3.8	U	4.3	U	4.2	U	4.2	U	4.1	U
1,2-Dichloropropane	3	U	4.2	U	4.7	U	4.6	U	5.4	U	4.4	U	4.6	U	4.2	U	4.1	U	4.3	U	4.5	U	3.8	U	4.3	U	4.2	U	4.2	U	4.1	U
cis-1,3-Dichloropropene	3	U	4.2	U	4.7	U	4.6	U	5.4	U	4.4	U	4.6	U	4.2	U	4.1	U	4.3	U	4.5	U	3.8	U	4.3	U	4.2	U	4.2	U	4.1	U
trans-1,3-Dichloropropene	3	U	4.2	U	4.7	U	4.6	U	5.4	U	4.4	U	4.6	U	4.2	U	4.1	U	4.3	U	4.5	U	3.8	U	4.3	U	4.2	U	4.2	U	4.1	U
Ethylbenzene	3	U	4.2	U	4.7	U	4.6	U	5.4	U	4.4	U	4.6	U	4.2	U	4.1	U	4.3	U	4.5	U	3.8	U	4.3	U	4.2	U	4.2	U	4.1	U
Freon 113	3	U	4.2	U	4.7	U	4.6	U	5.4	U	4.4	U	4.6	U	4.2	U	4.1	U	4.3	U	4.5	U	3.8	U	4.3	U	4.2	U	4.2	U	4.1	U
2-Hexanone	7.5	U	10	U	12	U	11	U	13	U	11	U	12	U	11	U	10	U	11	U	11	U	9.5	U	11	U	10	U	10	U	10	U
Isopropyl Benzene	3	U	4.2	U	4.7	U	4.6	U	5.4	U	4.4	U	4.6	U	4.2	U	4.1	U	4.3	U	4.5	U	3.8	U	4.3	U	4.2	U	4.2	U	4.1	U
Methyl Acetate	3	U	4.2	U	4.7	U	4.6	U	5.4	U	4.4	U	4.6	U	4.2	U	4.1	U	4.3	U	4.5	U	3.8	U	4.3	U	4.2	U	4.2	U	4.1	U
Methyl isobutylketone (MIBK)	7.5	U	10	U	12	U	11	U	13	U	11	U	12	U	11	U	10	U	11	U	11	U	9.5	U	11	U	10	U	10	U	10	U
Methylcyclohexane	4.4		2.6	J	4.7	U	4.6	U	5.4	U	3.1	J	4.6	U	4.2	U	4.4		4.3	U	4.5	U	4.1		4.3	U	4.2	U	4.2	U	1.6	J
Methylene chloride	3	U	4.2	U	4.7	U	4.6	U	5.4	U	4.4	U	4.6	U	4.2	U	4.1	U	4.3	U	4.5	U	3.8	U	4.3	U	4.2	U	4.2	U	4.1	U
Methyltert-butylether	3	U	4.2	U	4.7	U	4.6	U	5.4	U	4.4	U	4.6	U	4.2	U	4.1	U	4.3	U	4.5	U	3.8	U	4.3	U	4.2	U	4.2	U	4.1	U
Styrene	3	U	4.2	U	4.7	U	4.6	U	5.4	U	4.4	U	4.6	U	4.2	U	4.1	U	4.3	U	4.5	U	3.8	U	4.3	U	4.2	U	4.2	U	4.1	U
1,1,2,2-Tetrachloroethane	3	U	4.2	U	4.7	U	4.6	U	5.4	U	4.4	U	4.6	U	4.2	U	4.1	U	4.3	U	4.5	U	3.8	U	4.3	U	4.2	U	4.2	U	4.1	U
Tetrachloroethene	3	U	4.2	U	4.7	U	4.6	U	5.4	U	4.4	U	4.6	U	4.2	U	4.1	U	4.3	U	4.5	U	3.8	U	4.3	U	4.2	U	4.2	U	4.1	U
Toluene	1.9	J	4.2	UJ	4.7	U	4.6	U	5.4	U	0.8	J	4.6	U	4.2	U	1.7	J	4.3	U	4.5	U	2	J	1.4	J	0.73	J	4.2	U	1.3	J
Toluene-d8	32		43		46		45		56		47		46		41		40		44		44		40		45		41		41		41	
1,2,4-Trichlorobenzene	3	U	4.2	U	4.7	U	4.6	U	5.4	U	4.4	U	4.6	U	4.2	U	4.1	U	4.3	U	4.5	U	3.8	U	4.3	U	4.2	U	4.2	U	4.1	U
1,1,1-Trichloroethane	3	U	4.2	U	4.7	U	4.6	U	5.4	U	4.4	U	4.6	U	4.2	U	4.1	U	4.3	U	4.5	U	3.8	U	4.3	U	4.2	U	4.2	U	4.1	U
1,1,2-Trichloroethane	3	U	4.2	U	4.7	U	4.6	U	5.4	U	4.4	U	4.6	U	4.2	U	4.1	U	4.3	U	4.5	U	3.8	U	4.3	U	4.2	U	4.2	U	4.1	U
Trichloroethene	3	U	4.2	U	4.7	U	0.34	J	5.4	U	4.4	U	4.6	U	4.2	U	4.1	U	4.3	U	4.5	U	3.8	U	4.3	U	4.2	U	4.2	U	4.1	U
Trichlorofluoromethane	3	U	4.2	U	4.7	U	4.6	U	5.4	U	4.4	U	4.6	U	4.2	U	4.1	U	4.3	U	4.5	U	3.8	U	4.3	U	4.2	U	4.2	U	4.1	U
Vinyl chloride	3	U	4.2	U	4.7	U	4.6	U	5.4	U	4.4	U	4.6	U	4.2	U	4.1	U	4.3	U	4.5	U	3.8	U	4.3	U	4.2	U	4.2	U	4.1	U
o-Xylene	3	U	4.2	U	4.7	U	4.6	U	5.4	U	4.4	U	4.6	U	4.2	U	4.1	U	4.3	U	4.5	U	3.8	U	4.3	U	4.2	U	4.2	U	4.1	U
Xylene, (total)	9	U	13	U	14	U	14	U	16	U	13	U	14	U	13	U	12	U	13	U	13	U	11	U	13	U	12	U	13	U	12	U
m&p Xylenes	6	U	8.4	U	9.3	U	9.1	U	11	U	8.8	U	9.3	U	8.4	U	8.2	U	8.5	U	8.9	U	7.6	U	8.7	U	8.3	U	8.4	U	8.2	U
Metals (mg/kg)																																
Aluminum	7180		7110		13400		6850		6600		10500		6560		8360		5390		10800		5720		10800		8830		9990		8770		7780	
Antimony	0.64	UBN	0.65	UBN	0.41	UBN	0.68	UBN	1.8	N	0.68	UBN	0.73	UBN	0.57	UBN	0.5	UBN	0.58	UBN	0.69	UBN	0.34	UN	0.54	UBN	0.57	UBN	0.61	UBN	0.63	UBN
Arsenic	15.5	N	5.8	N	6.5	N	7.1	N	150	N	6.6	N	4.2	N	5.5	N	6.2	N	8.9	N	5.3	N	6.1	N	5.6	N	5.1	N	3.7	N	5.9	N
Barium	53.2		55.7		106		29.4		66.1		53.9		37.8		33.5		22.5	B	65.8		26.7		44.2		39		46.9		76.6		56.7	
Beryllium	0.51	B	0.44	B	0.94		0.39	B	0.47	B	0.55	B	0.34	B	0.56	B	0.31	B	0.58		0.31	B	0.58		0.48	B	0.57	B	0.47	B	0.47	B
Cadmium	0.14	UB	0.21	UB	0.06	U	0.06	U	0.89		0.06	U	0.92		0.06	U	0.1	UB	0.06	U	0.06	U	0.06	U	0.14	UB	0.06	U	0.22	UB	0.26	UB
Calcium	24400		20100		2840		813		4050		63100		2230		4610		67500		14900		68800		69400		68100		66700		2180		54100	
Chromium	13.7		13.1		18.8		11.1		12.7		18.6		17.4		12.1		10.8		17.3		10.7		18.1		16		17.2		12		16.7	
Cobalt	7.5		6.1		6.9		8.2		9.1		9.3		6.6		5.5		6.5		10		5.7		10.6		8		9.3		11		9.4	
Copper	25.1	N	32.1	N	20.7	N	12.3	N	80.6	N	23.3	N	27.4	N	14.2	N	17.2	N	23.3	N	14.4	N	22.5	N	20.1	N	20	N	26.2	N	39.3	N
Iron	14900		13700		19600		15600		12500		19200		11000		21600		13800		21900		13000		15300		17000		16500		12300		16300	
Lead	52.9		48		14.6		13.8		131		13.5		37.7		10.9		9.3		17.2		7		11		9.3		8.5		25.8		51.4	
Magnesium	12700		11800		3060		1870		2690		31700		2180		3080		37300		9550		31500		36200		35500		30800		2190		28800	
Manganese	522		391		2200		353		685		652		294		190		539		703		392		555		449		412		1360		774	
Mercury	0.076	*	0.11	*	0.077	*	0.021	B*	0.12	*	0.021	B*	0.022	B*	0.019	U*	0.019	U*	0.066	*	0.019	U*	0.02	B*	0.02	U*	0.019	U*	0.032	B*	0.17	*
Nickel	18.6		14.3		24.3		13.6		14.4		26.6		10.9		9.5		18.3		22.3		15.3		27.5		21.5		23.8		12.8		20.8	
Potassium	881	E	935	E	773	E	476	BE	768	E	1940	E	596	E	473	BE	1270	E	945	E	1300	E	2370	E	2150	E	2410	E	481	BE	1240	E
Selenium	0.37	UN	0.37	UN	0.41	UN	0.37	UN	0.57	BN	0.39	UN	0.39	UN	0.37	UN	0.38	UN	0.38	UN	0.36	UN	0.38	UN	0.38	UN	0.38	UN	0.4	UN	0.38	UN
Silver	0.07	UB	0.55	B	0.08	UB	0.06	U	0.2	UB	0.06	U	0.06	U	0.06	U	0.06	U	0.06	U	0.06	U	0.06	U	0.06	U	0.06	U	0.06	U	2.5	
Sodium	165	UB	123	UB	86.9	UB	106	UB	105	UB	156	UB	83.9	UB	89.3	UB	168	UB	112	UB	137	UB	199	UB	189	UB	191	UB	78.9	UB	147	UB
Thallium	1.4		0.8	B	0.72	B	0.44	U	0.51	U	2.5		0.47	U	0.82	B	0.93	B	0.97	B	1	B	2.3		1.7		1.3		0.48	U	2			
Vanadium	18.5		16.8		26.6		18.7		17.5		21.5		14.9		22		13.3		24.5		13.3		21.1		18.4		19.5		16.8		16.9	
Zinc	97.6	NE	114	NE	44.2	NE	46	NE	283	NE	58.1	NE	132	NE	39.6	NE	40.6	NE	66.1	NE	32.6	NE	48.3	NE	50	NE	37.5	NE	109	NE	194	NE
Wet Chemistry (mg/kg)																																
Cyanide	0.17	U	0.17	U	0.18	U	0.16	U	0.19	U	0.18	U	0.17	U	0.17	U	0.17	U	0.17	U	0.17	U	0.17	U	0.17	U	0.17	U	0.18	U	0.17	U

µg/kg - micrograms per kilogram
mg/kg - milligrams per kilogram
PQL - practical quantitation limit
MDL - method detection limit
NS - no standard

Laboratory Qualifiers:
J - estimated result, result is less than the reporting limit
B - method blank contamination, the associated method blank containes the target analyte at a reportable level
N - presumptive evidence of target analyte
U - not detected above the detection limit
* - duplicate analysis

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Table 3
F.B.I. Great Lakes Firing Range
North Chicago, Illinois
Deep Soil Sample Results

Sample ID:	**WSPSB-01**		**WSPSB-02**		**WSPSB-03**		**WSPSB-04**		**WSPSB-05**		**WSPSB-06**		**WSPSB-07**		**WSPSB-08**		**WSPSB-09**		**WSPSB-10**		**WSPSB-11**		**WSPSB-12**		**WSPSB-13**		**WSPSB-14**		**WSPSB-15**		**WSPSB-16**	
Sampling Date:	10/02/07	Lab Qualifier	10/02/07	Lab Qualifier	10/02/07	Lab Qualifier	10/02/07	Lab Qualifier	10/03/07	Lab Qualifier	10/03/07	Lab Qualifier	10/03/07	Lab Qualifier	10/03/07	Lab Qualifier	10/03/07	Lab Qualifier	10/03/07	Lab Qualifier	10/03/07	Lab Qualifier	10/03/07	Lab Qualifier	10/03/07	Lab Qualifier	10/03/07	Lab Qualifier	10/03/07	Lab Qualifier	10/03/07	Lab Qualifier
Depth:	4-6		4-6		4-6		4-6		4-6		4-6		4-6		4-6		4-6		4-6		4-6		4-6		4-6		4-6		4-6	
Metals (mg/kg)																														
Aluminum	6360		2310		2690		2580		5550		2510		4950		6190		7420		12300		9450		6910		5980		4890		4860		5070	
Antimony	0.92	UB	0.43	UB	0.55	UB	0.5	UB	0.55	UB	0.3	U	0.55	UB	0.73	UB	0.41	UB	0.4	UB	0.81	UB	0.51	UB	0.51	UB	0.38	UB	0.78	UB	0.79	U
Arsenic	6.9		1.9		2.5		4.9		4.2		2.9		8.6		8.4		2.6		6.8		8.6		5.1		5.7		5.2		20.1		3.3	
Barium	35.3		12.5	B	11.3	B	16.7	B	22.5		11.2	B	28.4		26.1		43.6		55.6		56.2		27.4		28.8		28.9		24.8		38.5	
Beryllium	0.46	B	0.12	B	0.15	B	0.16	B	0.3	B	0.13	B	0.31	B	0.33	B	0.34	B	0.71		0.51	B	0.36	B	0.32	B	0.27	B	0.29	B	0.29	
Cadmium	0.06	U	0.05	U	0.05	U	0.06	U	0.05	U	0.05	U	0.06	U	0.06	U	0.05	U	0.06	U	0.06	U	0.06	U	0.06	U	0.05	U	0.05	U	0.06	U
Calcium	47500		28500		28600		54600		47400		31400		21300		1730		71300		2390		16400		60700		56300		58100		56100		1490	
Chromium	11.8		4.2		5		5.5		10.2		4.9		10.1		13		14.2		19		17		12.4		11.4		10		9.9		8.1	
Cobalt	6.5		1.7		2.3		3		5.5		3.4		8.1		6.4		6.1		5.1		8.4		7		9		8.2		6.7		7.7	
Copper	18.1		11.8		5.9		8.7		15.3		7.5		20.9		29.4		14.9		19.2		26.2		18.5		15.7		15.7		21.7		57.3	
Iron	12600		5750		5810		7660		11200		6320		16000		18300		11000		22100		21900		14500		13900		12700		21500		8890	
Lead	25		6.1		2.8		4.9		7.1		4.2		9.5		8.4		4.8		10.4		13.9		12.7		8		7.9		11.8		23.4	
Magnesium	20400		10600		14700		19300		24100		13500		13400		2220		32200		3080		12000		32000		28800		33600		38000		1370	
Manganese	459		133		188		240		357		195		661		375		318		360		569		452		425		513		512		659	
Mercury	0.043		0.019	U	0.028	B	0.021	B	0.021	B	0.018	B	0.043		0.03	B	0.025	B	0.067		0.033	B	0.026	B	0.023	B	0.022	B	0.031	B	0.031	
Nickel	17.3		5.1		7.5		8.3		15.5		8.8		24.3		21.1		17.5		18.5		31		19.9		18.8		17.7		16.5		7.9	
Potassium	1210		417	B	533		482	B	1040		465	B	590		535	B	1640		602		1090		1290		1380		1070		880		324	
Selenium	0.39	U	0.35	U	0.35	U	0.39	U	0.35	U	0.34	U	0.37	U	0.38	U	0.36	U	0.37	U	0.38	U	0.37	U	0.37	U	0.35	U	0.36	U	0.4	U
Silver	0.08	B	0.05	U	0.05	U	0.06	U	0.05	U	0.05	U	0.06	U	0.06	U	0.06	B	0.06	U	0.07	B	0.06	U	0.06	U	0.05	U	0.05	U	0.06	U
Sodium	153	B	128	UB	89.7	UB	123	UB	127	UB	88.8	UB	125	UB	98	UB	184	B	74.6	UB	105	UB	160	B	136	UB	158	B	163	B	86.6	U
Thallium	0.48	U	0.42	U	0.42	U	0.47	U	0.42	U	0.41	U	0.45	U	0.46	U	0.44	U	0.45	U	0.46	U	0.45	U	0.45	U	0.42	U	0.43	U	0.49	U
Vanadium	15.9		6.7		5.8		8.1		11.4		5.4		17.1		21.8		16.8		24.4		19.6		14.2		13.2		11.4		15.2		11.1	
Zinc	55.1		14.1		16.3		16.7		27.3		16.5		79		45.2		24.8		53.2		61.2		39		36.3		41.5		53.2		84.6	
Wet Chemistry (mg/kg)																														
Cyanide	0.18	U	0.17	U	0.17	U	0.18	U	0.17	U	0.16	U	0.18	U	0.19	U	0.17	U	0.17	U	0.17	U	0.17	U	0.17	U	0.17	U	0.16	U	0.18	U
Wet Chemistry (S.U.)																														
Hydrogen ion	8.63		8.72		8.65		8.6		8.68		8.67		8.33		8.39		8.64		8.29		8.6		8.8		8.74		8.82		8.83		8.06	

µg/kg - micrograms per kilogram
mg/kg - milligrams per kilogram
PQL - practical quantitation limit
MDL - method detection limit
ND - below the PQL

Laboratory Qualifiers:
U - not detected above tl
B - method blank contan

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Table 4
FBI Great Lakes Firing Range
North Chicago, Illinois
Groundwater Sample Results

Sample ID:	**WSPGWS-1**		**WSPGWS-2**		**WSPGWS-3**		**WSPGWS-4**	
Sampling Date:	10/03/07	Lab Qualifiers	10/03/07	Lab Qualifiers	10/03/07	Lab Qualifiers	10/03/07	Lab Qualifiers
Depth:	0		0		0		0	
VOCs (µg/L)								
Acetone	4.1	UB	5.5	UB	3.3	UB	5.5	UB
Benzene	0.5	U	0.5	U	0.5	U	0.5	U
Bromodichloromethane	0.5	U	0.5	U	0.5	U	0.5	U
Bromofluorobenzene	3.8		3.6		4		3.9	
Bromoform	0.5	U	0.5	U	0.5	U	0.5	U
Bromomethane	0.5	U	0.5	U	0.5	U	0.5	U
2-Butanone	2.5	U	2.5	U	2.5	U	2.5	U
Carbon disulfide	0.5	U	0.5	U	0.5	U	0.5	U
Carbon tetrachloride	0.5	U	0.5	U	0.5	U	0.5	U
Chlorobenzene	0.5	U	0.5	U	0.5	U	0.5	U
Chloroethane	0.5	U	0.5	U	0.5	U	0.5	U
Chloroform	0.5	U	0.5	U	0.5	U	0.5	U
Chloromethane	0.5	U	0.5	U	0.5	U	0.5	U
Cyclohexane	0.5	UJB	0.5	UJB	0.5	UJB	0.5	UJB
1,2-Dibromo-3-Chloropropane	0.5	U	0.5	U	0.5	U	0.5	U
Dibromochloromethane	0.5	U	0.5	U	0.5	U	0.5	U
1,2-Dibromoethane	0.5	U	0.5	U	0.5	U	0.5	U
Dibromofluoromethane	3.9		4.1		4		4	
1,2-Dichlorobenzene	0.5	U	0.5	U	0.5	U	0.5	U
1,3-Dichlorobenzene	0.5	U	0.5	U	0.5	U	0.5	U
1,4-Dichlorobenzene	0.5	U	0.5	U	0.5	U	0.5	U
Dichlorodifluoromethane	0.5	U	0.5	U	0.5	U	0.5	U
1,1-Dichloroethane	0.5	U	0.5	U	0.5	U	0.5	U
1,2-Dichloroethane	0.5	U	0.5	U	0.5	U	0.5	U
1,2-Dichloroethane-d4	3.6		3.8		3.7		3.7	
1,1-Dichloroethene	0.5	U	0.5	U	0.5	U	0.5	U
trans-1,2-Dichloroethene	0.5	U	0.5	U	0.5	U	0.5	U
cis-1,2-Dichloroethylene	0.5	U	0.5	U	0.5	U	0.5	U
1,2-Dichloropropane	0.5	U	0.5	U	0.5	U	0.5	U
cis-1,3-Dichloropropene	0.5	U	0.5	U	0.5	U	0.5	U
trans-1,3-Dichloropropene	0.5	U	0.5	U	0.5	U	0.5	U
Ethylbenzene	0.5	U	0.5	U	0.5	U	0.5	U
Freon 113	0.5	U	0.5	U	0.5	U	0.5	U
2-Hexanone	2.5	U	2.5	U	2.5	U	2.5	U
Isopropyl Benzene	0.5	U	0.5	U	0.5	U	0.5	U
Methyl Acetate	0.5	U	0.5	U	0.5	U	0.5	U
Methyl isobutylketone (MIBK)	2.5	U	2.5	U	2.5	U	2.5	U
Methylcyclohexane	0.5	U	0.5	U	0.5	U	0.5	U
Methylene chloride	0.5	U	0.5	U	0.5	U	0.5	U
Methyltert-butylether	0.5	U	0.5	U	0.5	U	0.5	U
Styrene	0.5	U	0.5	U	0.5	U	0.5	U
1,1,2,2-Tetrachloroethane	0.5	U	0.5	U	0.5	U	0.5	U
Tetrachloroethene	0.5	U	0.5	U	0.5	U	0.5	U
Toluene	0.5	U	0.5	U	0.5	UJ	0.5	U
Toluene-d8	3.8		4		3.9		3.9	
1,2,4-Trichlorobenzene	0.5	U	0.5	U	0.5	U	0.5	U
1,1,1-Trichloroethane	0.5	U	0.5	U	0.5	U	0.5	U
1,1,2-Trichloroethane	0.5	U	0.5	U	0.5	U	0.5	U
Trichloroethene	0.5	U	0.5	U	0.5	U	0.5	U
Trichlorofluoromethane	0.5	U	0.5	U	0.5	U	0.5	U
Vinyl chloride	0.5	U	0.5	U	0.5	U	0.5	U
o-Xylene	0.5	U	0.5	U	0.5	U	0.5	U
Xylene, (total)	0.5	U	0.5	U	0.5	U	0.5	U
m&p Xylenes	1	U	1	U	1	U	1	U

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Table 4

FBI Great Lakes Firing Range
North Chicago, Illinois
Groundwater Sample Results

Sample ID:	**WSPGWS-1**		**WSPGWS-2**		**WSPGWS-3**		**WSPGWS-4**	
Sampling Date:	10/03/07	Lab Qualifiers	10/03/07	Lab Qualifiers	10/03/07	Lab Qualifiers	10/03/07	Lab Qualifiers
Depth:	0		0		0		0	
Metals (µg/L)								
Aluminum	59000		87600		39900		20200	
Antimony	2.9	U	3.4	B	2.9	U	2.9	U
Arsenic	155		91.2		39.7		19.9	
Barium	500		777		300		226	
Beryllium	3.3	B	4.9	B	2.2	B	1.4	B
Cadmium	4.2	B	4	B	0.82	B	0.5	U
Calcium	1410000		NA		396000		377000	
Chromium	131		173		85.1		44.7	
Cobalt	161		127		38.7		26.6	
Copper	359		310		141		58.8	
Iron	203000		223000		102000		43500	
Lead	200		156		86.2		74.6	
Magnesium	568000		465000		200000		201000	
Manganese	9900		5960		2460		2000	
Mercury	0.2		0.4		0.43		0.16	B
Nickel	308		315		117		67.1	
Potassium	17000		24500		7700		8970	
Selenium	3.3	U	3.3	U	3.3	U	3.3	U
Silver	0.5	U	0.5	U	0.5	U	0.5	U
Sodium	13800		19700		10300		7720	
Thallium	47.7		48.1		12.3		6	B
Vanadium	134		160		86		51.5	
Zinc	655		659		417		171	
Wet Chemistry (µg/L)								
Cyanide	3	U	3	U	3	U	3	U
Wet Chemistry (S.U.)								
Hydrogen ion	7.72		7.51		8		7.9	

µg/L - micrograms per Liter
NS - no standard
PQL - practical quantitation limit
MDL - method detection limit

Laboratory Qualifiers:
U - not detected above the detection limit
B - method blank contamination, the associated method blank containes the target analyte at a reportable level
J - estimated result, result is less than the reporting limit

Exhibit 3

to Declaration of Mark S. Lorenz

U.S. Department of Justice

Federal Bureau of Investigation

Washington, D. C. 20535-0001

March 7, 2008

Mary Gade
Regional Administrator
United States Environmental Protection Agency
Region 5
77 W. Jackson Blvd
Chicago, IL 60604

Dear Ms. Gade:

This letter notifies your office of actions being taken by the Federal Bureau of Investigation (FBI) regarding the FBI Chicago Division Regional Training Facility in North Chicago, Illinois. This facility is under the jurisdiction, custody and control of the FBI and provides firearms and other training to a variety of federal, state, and local agencies, including various U.S. military branches. The facility also includes an adjacent geographic area in Lake Michigan, the boundaries of which are specified in 33 C.F.R. § 334.830.

Pursuant to Section 104 of the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA), 42 U.S.C. § 9604, Executive Order 12,580, and the National Contingency Plan, 40 C.F.R. pt. 300 (NCP), the FBI has initiated an evaluation of environmental conditions at the facility.

The FBI's evaluation of the facility is in its preliminary stages and, consistent with the NCP, will determine whether and to what extent removal or remedial action is required at the facility. In July 2006, an FBI environmental contractor completed a Phase I environmental site assessment of the facility. Based on the recommendations in that assessment, beginning in October 2007, additional investigation and sampling was undertaken and currently continues. The FBI anticipates that information from its Phase I report and analytical sampling data gathered to date will be used to prepare an in-depth assessment of environmental conditions at the facility.

As lead agency for any response action, and in accordance with its obligations under CERCLA Section 120, 42 U.S.C. § 9620 and the NCP, the FBI will coordinate with EPA and other agencies as appropriate in this matter. In that regard, we note that, in January 2008, the FBI contacted the Illinois Environmental Protection Agency concerning the FBI's evaluation of conditions at the facility.

Thank you for your attention to this matter and please contact me with any questions or concerns.

Sincerely,

Michael D. Donnelly, P.E.
Deputy Assistant Director
Facilities and Logistics
Services Division

TOTAL P.04

U.S. Department of Justice

Federal Bureau of Investigation

Washington, D. C. 20535-0001

March 7, 2008

Rick Lucas
Illinois Environmental Protection Agency
1021 North Grand Avenue, East
Post Office Box 19276
Springfield, IL 62794-9276

Dear Mr. Lucas:

This letter memorializes our communication with you regarding actions taken by the Federal Bureau of Investigation with respect to its North Chicago Firearms Range Facility. This facility is owned and operated by the FBI and provides firearms and other law enforcement training to a variety of federal, state, and local agencies.

On January 11, 2008, Supervisory Special Agent (SSA) Mike Pavia, of the FBI's Chicago Division , called the IEPA to discuss preliminary environmental testing that had been conducted between October and December 2007 at the North Chicago Firearms Range Facility. SSA Pavia spoke with you, and was informed that, only in the event that the FBI were planning to sell the range property would the IEPA engage in oversight of further investigative activities. You provided SSA Pavia with a list of consultants who could assist with additional testing at the range.

The FBI is continuing to investigate the environmental conditions on its property. We will inform you of the results of this investigation as necessary. Thank you for your attention to this matter.

Sincerely,

Michael D. Donnelly, P.E.
Deputy Assistant Director
Facilities and Logistics
Services Division